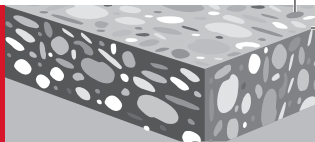


# HILTI



## Hilti HIT-RE 500 1400 Jumbo

Instructions for use en

Instrucciones de uso es

Mode d'emploi fr

Instruções de utilização pt



(B)



(A, B)



(A)

**Danger**



Contains epoxy constituents. May produce an allergic reaction.(A)





**Contains:** reaction product: bisphenol-A-(epichlorhydrin) epoxy resin MW ≤ 700 (A), reaction product: bisphenol-F epichlorhydrin resin MWs700 (A), m-Xylenediamine.(B)









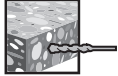
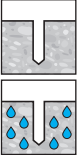

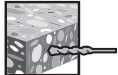

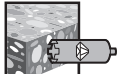
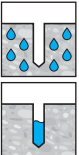

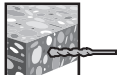

Causes severe skin burns and eye damage.(B)

May cause an allergic skin reaction.(A,B)

Toxic to aquatic life with long lasting effects.(A)



<b>en</b>	Adhesive anchoring system for rebar and anchor fastenings in concrete. Read the safety instructions, general informations and warnings before using the product.	→  30 31
<b>es</b>	Resina de inyección para la fijación de anclajes y tacos en hormigón. Lea las indicaciones de seguridad, la información general y las advertencias antes de utilizar el producto.	→  32 33
<b>fr</b>	Mortier de scellement pour ancrage de chevilles et d'armatures dans le béton. Avant utilisation, bien lire les prescriptions de sécurité, les informations générales et les indications d'avertissement.	→  34 35
<b>pt</b>	Buchas químicas para fixações de ferros e de ancoragens em betão. Antes da aplicação, ler a ficha de segurança, as informações gerais e as advertências.	→  36 37

						
<b>1</b>			$\frac{9}{16}'' \dots \frac{3}{4}''$ 14...20 mm	$4 \frac{1}{2}'' \dots 10''$ 110...250 mm		
<b>2</b>					$\frac{9}{16}'' \dots 1 \frac{3}{4}''$ 14...55 mm	$4 \frac{1}{2}'' \dots 120''$ 110...3200 mm
<b>3</b>			$\frac{9}{16}'' \dots 1 \frac{3}{4}''$ 14...55 mm	$4 \frac{1}{2}'' \dots 120''$ 110...3200 mm		
<b>4</b>					$\frac{9}{16}'' \dots \frac{3}{4}''$ 14...20 mm	$4 \frac{1}{2}'' \dots 10''$ 110...250 mm
<b>5</b>			$\frac{9}{16}'' \dots 1 \frac{3}{4}''$ 14...55 mm	$4 \frac{1}{2}'' \dots 120''$ 110...3200 mm		
<b>6</b>					$\frac{9}{16}'' \dots \frac{3}{4}''$ 14...20 mm	$4 \frac{1}{2}'' \dots 10''$ 110...250 mm
<b>7</b>			$\frac{9}{16}'' \dots 1 \frac{3}{4}''$ 14...55 mm	$4 \frac{1}{2}'' \dots 120''$ 110...3200 mm		
<b>8</b>					$\frac{9}{16}'' \dots \frac{3}{4}''$ 14...20 mm	$4 \frac{1}{2}'' \dots 10''$ 110...250 mm
<b>9</b>			$\frac{9}{16}'' \dots 1 \frac{3}{4}''$ 14...55 mm	$4 \frac{1}{2}'' \dots 120''$ 110...3200 mm		
<b>10</b>					$\frac{9}{16}'' \dots 1 \frac{3}{4}''$ 14...55 mm	$4 \frac{1}{2}'' \dots 10''$ 110...250 mm



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**en** Dry concrete

Water saturated  
concrete

Waterfilled borehole  
in concrete

Submerged borehole  
in concrete

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**es** Hormigón seco

Hormigón saturado  
de agua

Taladro lleno de  
agua en hormigón

Taladro sumergido  
en hormigón

---

**fr** Béton sec

Béton saturé d'eau

Trou dans le béton  
rempli d'eau

Trou dans le béton  
immergé

---

**pt** Betão seco






Betão saturado de  
água

Furo em betão cheio  
de água

Furo debaixo de  
água em betão

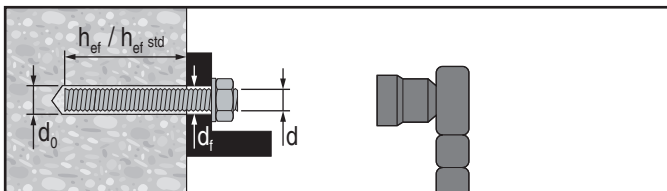
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<b>en</b>	Hammer drilling	Diamond coring	Working time	Initial curing time	Curing time
<b>es</b>	Taladrado con martillo	Taladrado con diamante	Tiempo de tratamiento	Resistencia de montaje	Tiempo de fraguado
<b>fr</b>	Perçage avec percussion	Forage au diamant	Temps de manipulation	Stabilité du montage	Temps de durcissement
<b>pt</b>	Perfurar de martelo	Perfurar com equipamento diamantado	Tempo de trabalho	Resistência de montagem	Tempo de cura total


# HiTi HIT-RE 500 / 1400 Jumbo

## HIT-V (-R, -F, -HCR) / HAS (-R, -F, -HCR) / HAS-E (-R, -F, -HCR)

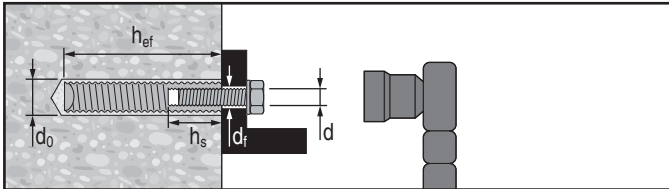



 $\varnothing d$ [inch]	$\varnothing d_0$ [inch]	$h_{ef\ std}$ [inch]	$h_{ef}$ [inch]	$\varnothing d_f$ [inch]	$T_{max}$ [ft-lb]	$T_{max}$ [Nm]
1/2	9/16	4 1/2	4 1/2 ... 10	9/16	≤ 30	≤ 41
5/8	3/4	5 5/8	4 1/2 ... 12 1/2	11/16	≤ 60	≤ 81
3/4	7/8	6 3/4	4 1/2 ... 15	13/16	≤ 100	≤ 136
7/8	1	7 7/8	4 1/2 ... 17 1/2	15/16	≤ 125	≤ 169
1	1 1/8	9	4 1/2 ... 20	1 1/8	≤ 150	≤ 203
1 1/4	1 3/8	11 1/4	5 ... 25	1 3/8	≤ 200	≤ 271


1 inch = 25,4 mm

 $\varnothing d$ [mm]	$\varnothing d_0$ [mm]	$h_{ef\ std}$ [mm]	$h_{ef}$ [mm]	$\varnothing d_f$ [mm]	$T_{max}$ [Nm]
M12	14	110	110...240	14	≤ 40
M16	18	125	110...320	18	≤ 80
M20	24	170	110...400	22	≤ 150
M24	28	210	110...480	26	≤ 200
M27	30	240	110...540	30	≤ 270
M30	35	270	120...600	33	≤ 300

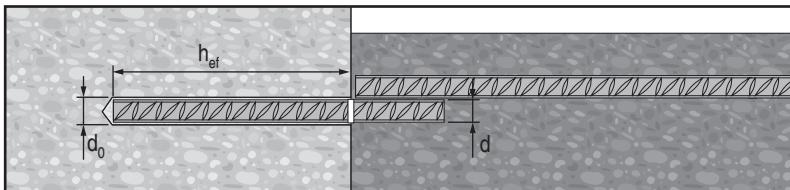
**HIS (-N, -RN)**




	$\varnothing d_0$ [inch]	$h_{ef}$ [inch]	$h_{ef}$ [mm]	$\varnothing d_i$ [inch]	$T_{max}$ [ft-lb]	$T_{max}$ [Nm]
$\frac{3}{8}$	$1\frac{1}{16}$	$4\frac{3}{8}$	110	$\frac{7}{16}$	$\leq 15$	$\leq 20$
$\frac{1}{2}$	$\frac{7}{8}$	5	125	$\frac{9}{16}$	$\leq 30$	$\leq 41$
$\frac{5}{8}$	$1\frac{1}{8}$	$6\frac{3}{4}$	170	$1\frac{1}{16}$	$\leq 60$	$\leq 81$
$\frac{3}{4}$	$1\frac{1}{4}$	$8\frac{1}{8}$	205	$1\frac{3}{16}$	$\leq 100$	$\leq 136$

	$\varnothing d_0$ [mm]	$h_{ef}$ [mm]	$\varnothing d_i$ [mm]	$T_{max}$ [Nm]
M10	18	110	12	$\leq 20$
M12	22	125	14	$\leq 40$
M16	28	170	18	$\leq 80$
M20	32	205	22	$\leq 150$


## Rebar



## US Rebar

 d	$\varnothing d_0$ [inch]	$h_{ef}$ std [inch]	$h_{ef}$ [inch]
# 4	$\frac{5}{8}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$ ...50
# 5	$\frac{3}{4}$	5 $\frac{5}{8}$	4 $\frac{1}{2}$ ...62 $\frac{1}{2}$
# 6	$\frac{7}{8}$	6 $\frac{3}{4}$	4 $\frac{1}{2}$ ...75
# 7	1	7 $\frac{7}{8}$	4 $\frac{1}{2}$ ...87 $\frac{1}{2}$
# 8	1 $\frac{1}{8}$	9	4 $\frac{1}{2}$ ...100
# 9	1 $\frac{3}{8}$	10 $\frac{1}{8}$	4 $\frac{1}{2}$ ...112 $\frac{1}{2}$
# 10	1 $\frac{1}{2}$	11 $\frac{1}{4}$	5...120
# 11	1 $\frac{3}{4}$	12 $\frac{3}{8}$	5 $\frac{1}{2}$ ...120


## CA Rebar

 d	$\varnothing d_0$ [inch]	$h_{ef}$ std [mm]	$h_{ef}$ [mm]
10 M	$\frac{9}{16}$	115	110...226
15 M	$\frac{3}{4}$	145	110...320
20 M	1	200	110...390
25 M	1 $\frac{1}{4}$	230	110...504
30 M	1 $\frac{1}{2}$	260	120...598
35 M	1 $\frac{3}{4}$	315	143...714











1 inch = 25,4 mm






## EU Rebar







 Ø d [mm]	Ø d <sub>0</sub> [mm]	h <sub>ef</sub> [mm]
10	14	110...1000
12	16	110...1000
14	18	110...1400
16	20	110...1500
18	22	110...1800
20	25	110...2000
22	28	110...2200
24	32	110...2400
25	32	110...2500
26	35	110...2600
28	35	112...2800
30	37	120...3000
32	40	128...3200
34	45	136...3200
36	45	143...3200
40	55	160...3200







## Hilti HIT-RE 500 / 1400 Jumbo


Ø 	HIT-V HAS- 	HIS-N 	Rebar 						
				HIT-RB 	Art. No.	HIT-SZ 	Art. No.	HIT-DL 	Art. No.
$d_0$ [mm]	d [mm]			[mm]	Art. No.	[mm]	Art. No.	[mm]	Art. No.
14	12	–	10/12	14	336549	14	335023	14	371716
16	–	–	12	16	336550	16	335024	16	371717
18	16	10	14	18	336551	18	335025	18	371718
20	–	–	16	20	336552	20	335026	20	371719
22	–	12	18	22	370774	22	380922	20	371719
24	20	–	–	24	380918	24	380923	20	371719
25	–	–	20	25	336553	25	335027	25	371720
28	24	16	22	28	380919	28	380924	25	371720
30	27	–	–	30	380920	30	380925	25	371720
32	–	20	25	32	336554	32	335028	32	371721
35	30	–	26/28	35	380921	35	380926	32	371721
40	–	–	32	40	382260	40	380927	32	371721



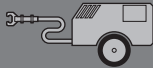



HIT-DL:  $h_{ef} > 250$  mm,  $h_{ef} > 20 \times d$

	HIT-OHC 		HIT-OHW 
Ø $d_0$ [mm]	HIT-...	Art. No.	Art. No.
14 ... 20	OHC 1	387551	387550
22 ... 32	OHC 2	387552	











 Ø $d_0$	 $h_{ef}$		 Art. No. 381215	HIT-VL 	HIT-DL 
14 ... 32 mm	110 ... 800 mm	≥ 6 bar	✓	✓	✓
14 ... 55 mm	110 ... 3200 mm	≥ 6 bar @ 140 m <sup>3</sup> /h	–	✓	✓








Ø	HIT-V HAS-	HIS-N	Rebar	HIT-RB		HIT-IP		HIT-DL	
									
d <sub>0</sub> [inch]	d [inch]			[inch]	Art. No.	[inch]	Art. No.	[inch]	
9/16	1/2	-	-	9/16	273205	9/16	274020	9/16	38238
5/8	-	-	#4	5/8	273207	5/8	274021	9/16	38238
11/16	-	3/8	-	11/16	273209	11/16	274022	11/16	38239
3/4	5/8	-	#5	3/4	273210	3/4	274023	3/4	38240
7/8	3/4	1/2	#6	7/8	273211	7/8	274024	7/8	38241
1	7/8	-	#7	1	273212	1	274025	1	38242
1 1/8	1	5/8	#8	1 1/8	273214	1 1/8	274026	1	38242
1 1/4	-	3/4	-	1 1/4	273216	1 1/4	274027	1	38242
1 3/8	1 1/4	-	#9	1 3/8	273217	1 3/8	274028	1 3/8	38243
1 1/2	-	-	#10	1 1/2	273218	1 1/2	274029	1 3/8	38243
1 3/4	1 1/2	-	#11	1 3/4	273219	1 3/4	274030	1 3/8	38243

	HIT-OHC		HIT-OHW
Ø d <sub>0</sub> [mm]	HIT-...	Art. No.	Art. No.
9/16 ... 3/4	OHC 1	387551	387550
7/8 ... 1 3/4	OHC 2	387552	

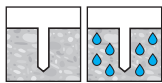
					
Ø d <sub>0</sub>	$h_{ef}$		Art. No. 381215	HIT-VL	HIT-DL
9/16 ... 1 1/4 inch	4 1/2 ... 10 inch	≥ 90 psi	✓	✓	✓
9/16 ... 1 3/4 inch	4 1/2 ... 120 inch	≥ 82 CFM @ 90 psi	-	✓	✓

# Hilti HIT-RE 500 / 1400 Jumbo

ETA								
	[°C]	[°F]	 $t_{work}$	 $t_{cure, ini}$	 $t_{cure, full}$			
	5...9	41...49	0...2 h	≥ 18 h	≥ 72 h			
	10...14	50...58	0...1½ h	≥ 12 h	≥ 48 h			
	15...19	59...67	0...30 min	≥ 9 h	≥ 24 h			
	20...29	68...85	0...20 min	≥ 6 h	≥ 12 h			
	30...39	86...103	0...12 min	≥ 4 h	≥ 8 h			
	40	104	0...12 min	≥ 4 h	≥ 4 h			

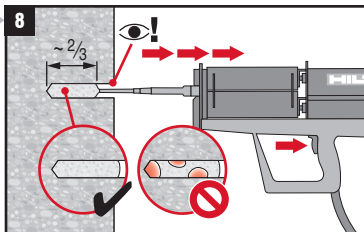
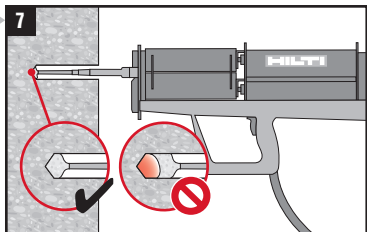
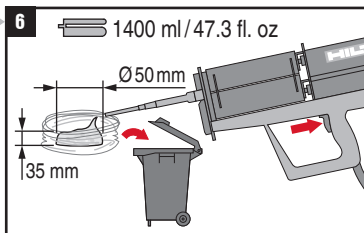
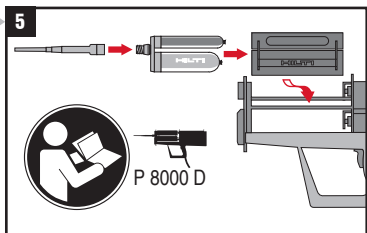
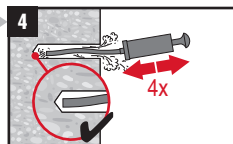
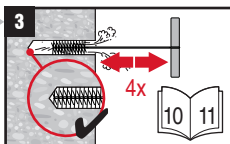
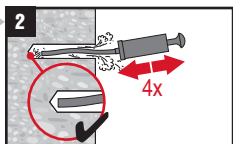
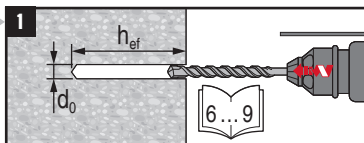
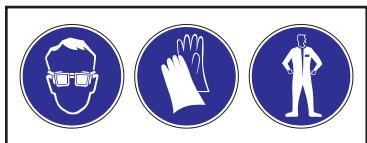
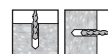
						
	[°C]	[°F]	 $t_{\text{work}}$	 $t_{\text{cure, ini}}$	 $t_{\text{cure, full}}$	
	-5...-1	23...31	0...4 h	≥ 36 h	≥ 72 h	
	0...9	32...49	0...3 h	≥ 25 h	≥ 50 h	
	10...19	50...67	0...2 h	≥ 12 h	≥ 24 h	
	20...29	68...85	0...20 min	≥ 6 h	≥ 12 h	
	30...39	86...103	0...12 min	≥ 4 h	≥ 8 h	
	40	104	0...12 min	≥ 2 h	≥ 4 h	

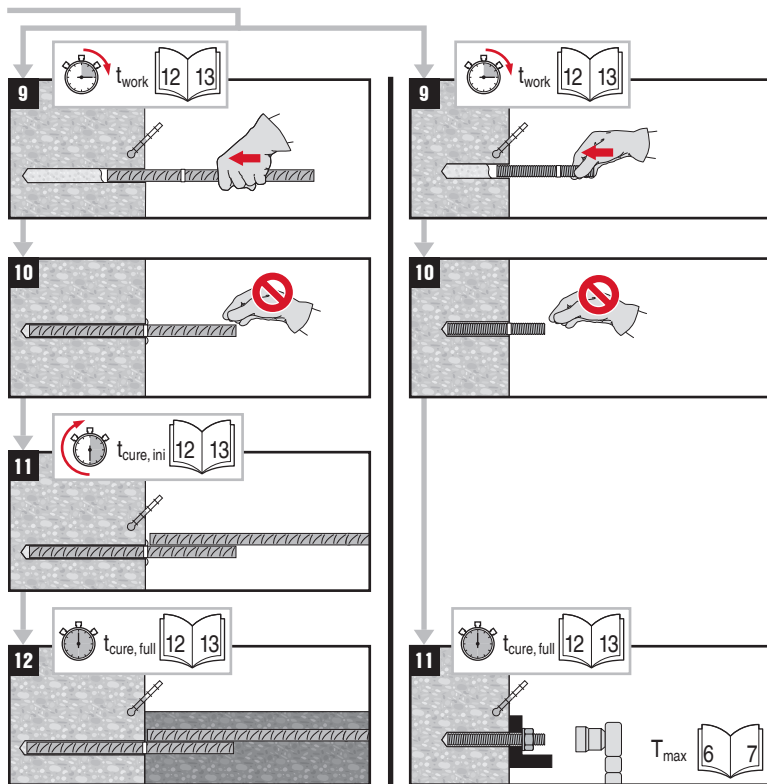
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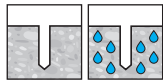
$d_0$ :  
 $9/16'' \dots 3/4''$   
 $14 \dots 20 \text{ mm}$

$h_{ef}$ :  
 $4 \frac{1}{2}'' \dots 10''$   
 $110 \dots 250 \text{ mm}$



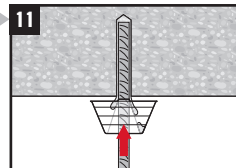
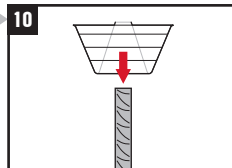
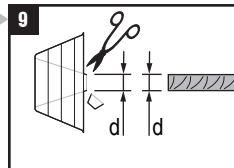
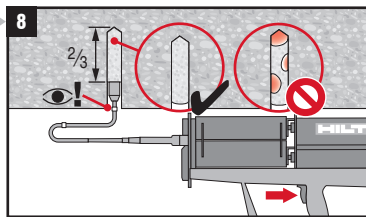
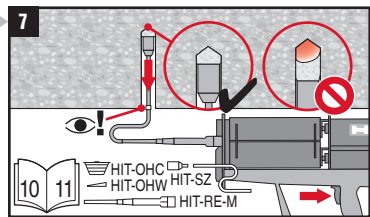
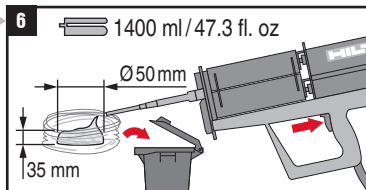
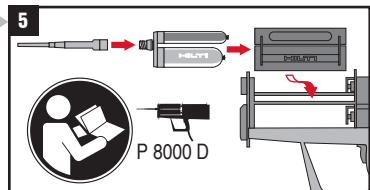
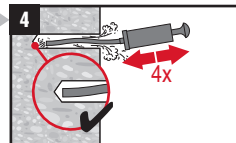
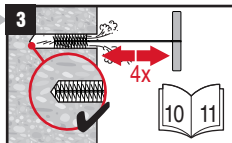
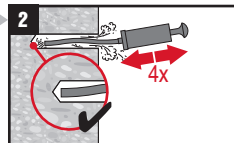
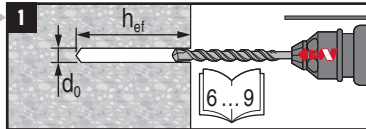
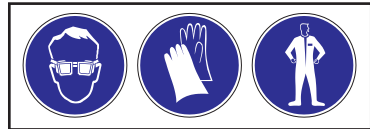


2

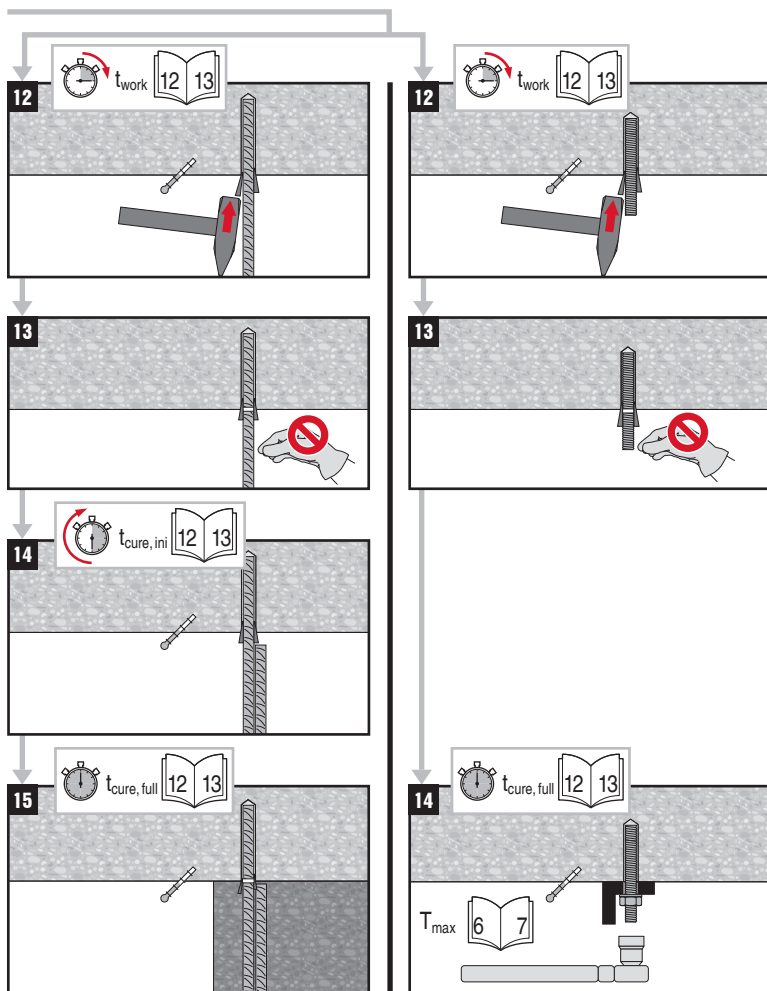


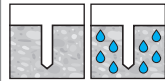
$d_0$ :  
 $\frac{9}{16}'' \dots \frac{3}{4}''$   
 14...20 mm

$h_{ef}$ :  
 $4 \frac{1}{2}'' \dots 10''$   
 110...250 mm



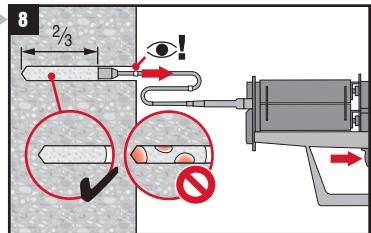
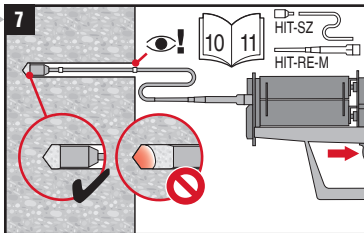
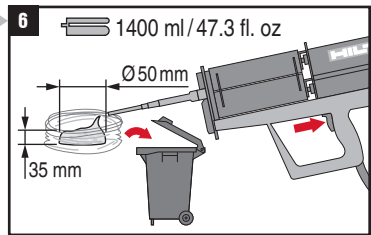
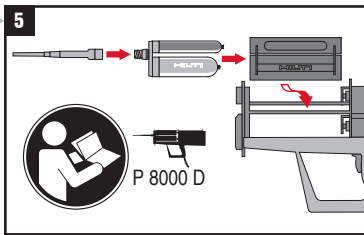
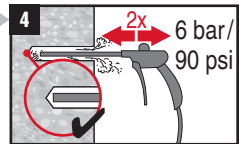
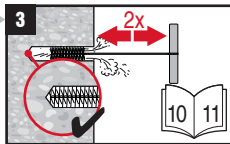
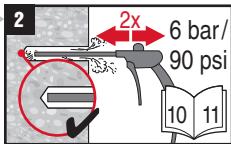
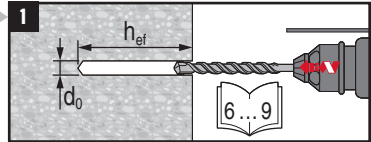
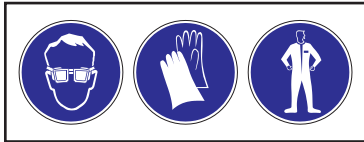
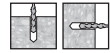


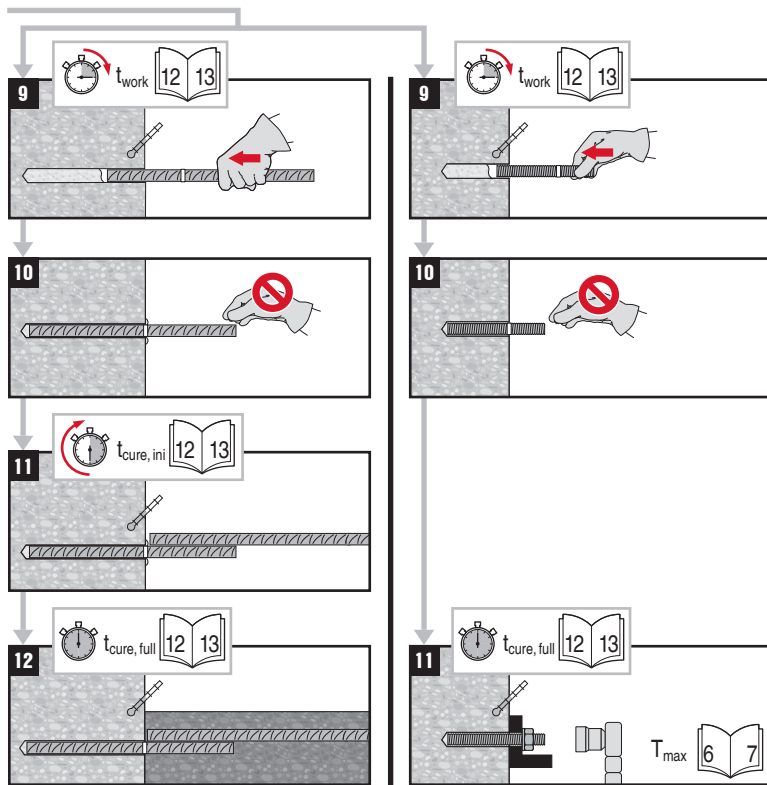


**3**

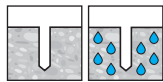
$d_0$ :  
 $\frac{9}{16}$ "... $1\frac{3}{4}$ "  
 14...55 mm

$h_{ef}$ :  
 $4\frac{1}{2}$ "...120"  
 110...3200 mm



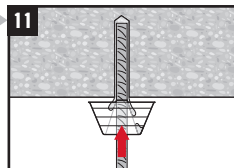
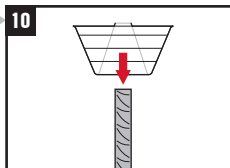
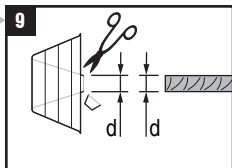
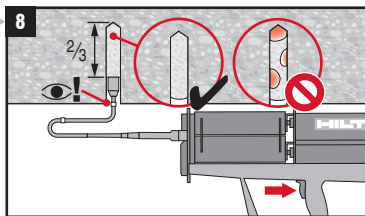
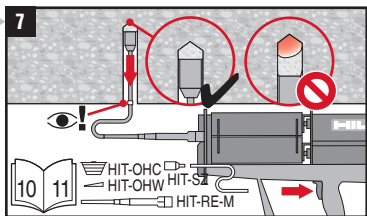
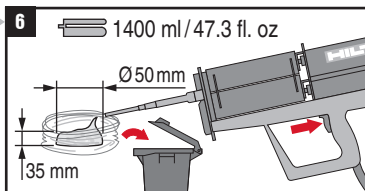
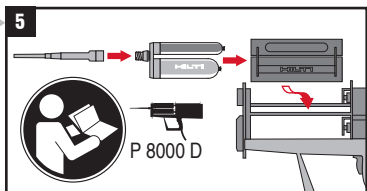
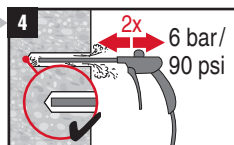
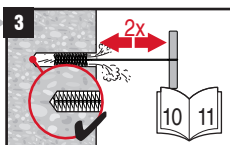
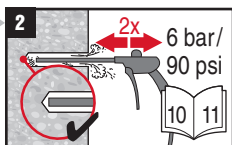
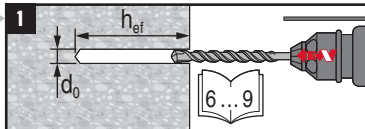


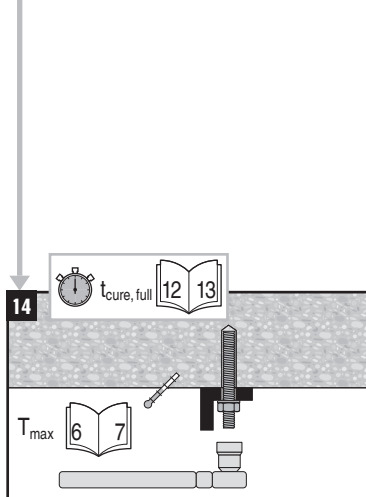
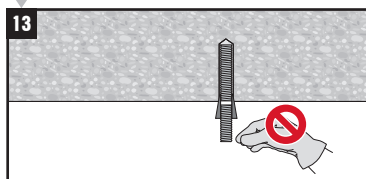
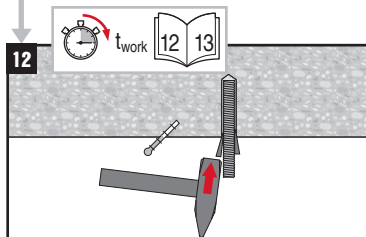
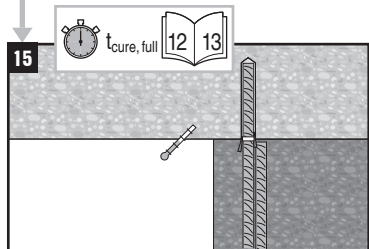
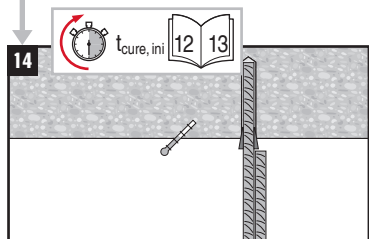
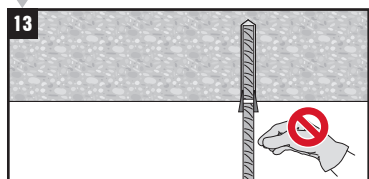
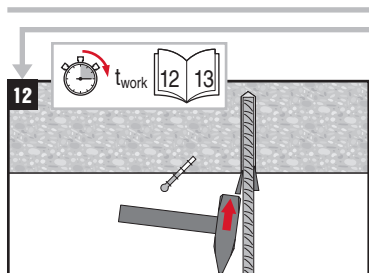
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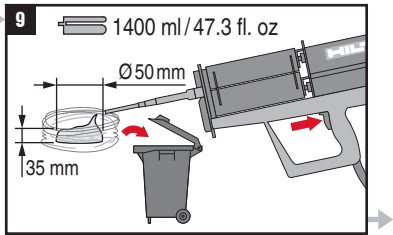
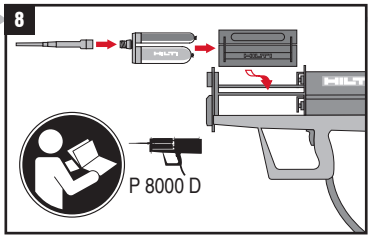
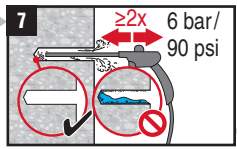
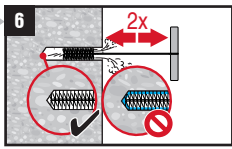
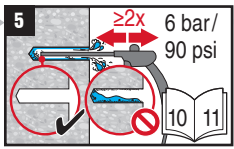
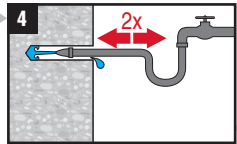
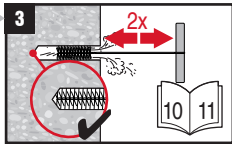
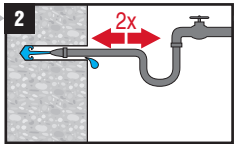
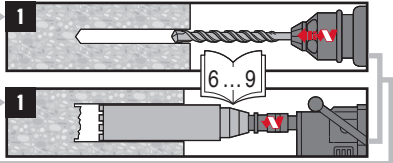
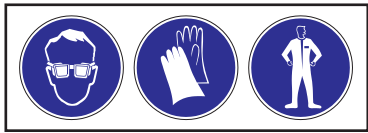
$d_0$ :  
 $9/16'' \dots 1 3/4''$   
 14...55 mm

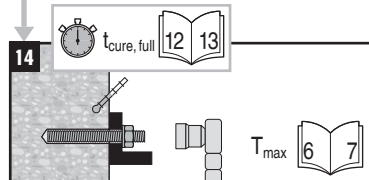
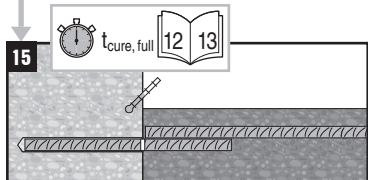
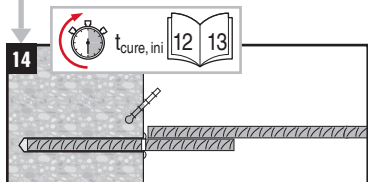
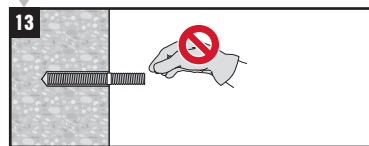
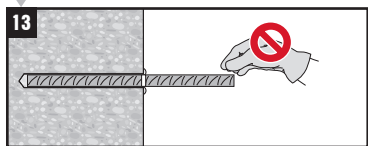
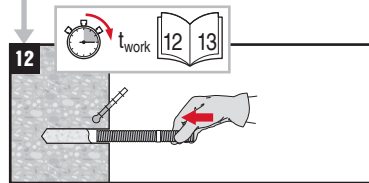
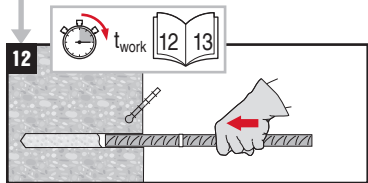
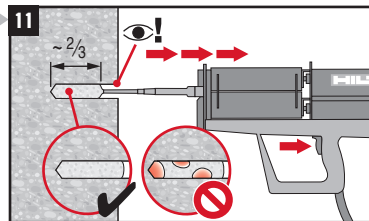
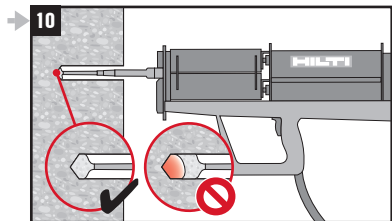
$h_{ef}$ :  
 $4 1/2'' \dots 120''$   
 110...3200 mm



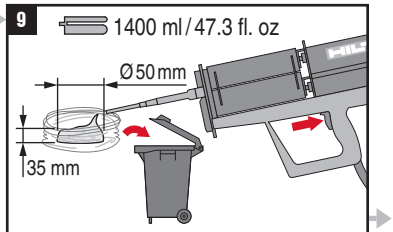
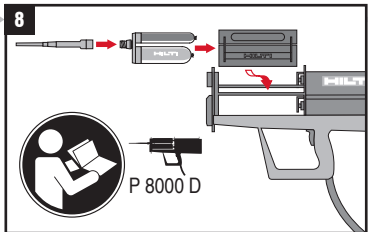
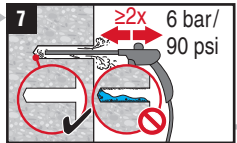
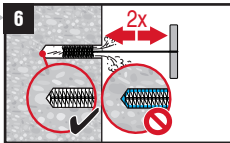
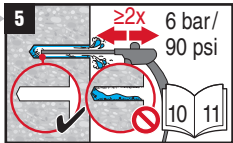
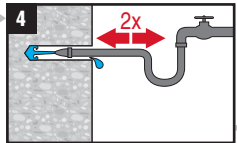
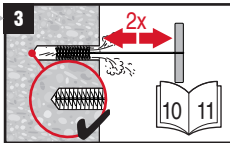
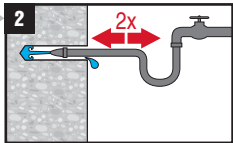
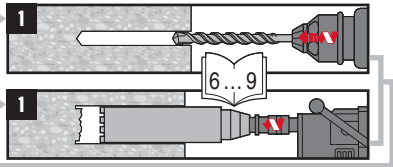


5			$d_0$ : $\frac{9}{16}'' \dots \frac{1}{2}''$ 14...20 mm	$h_{ef}$ : $4 \frac{1}{2}'' \dots 10''$ 110...250 mm	
	7				

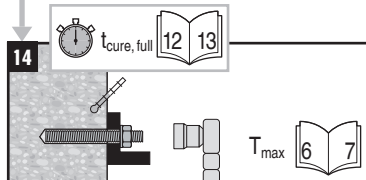
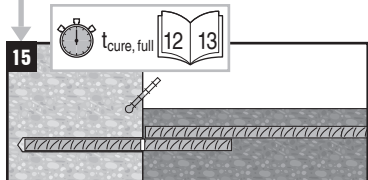
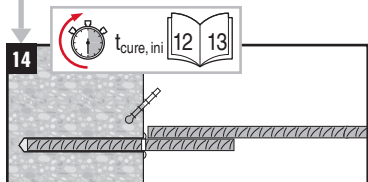
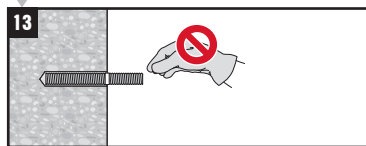
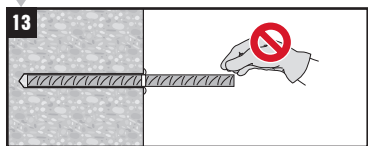
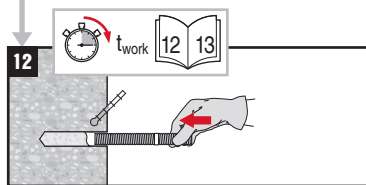
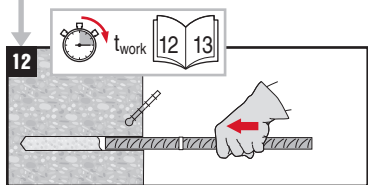
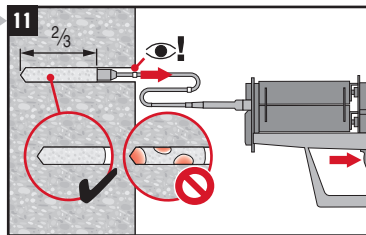
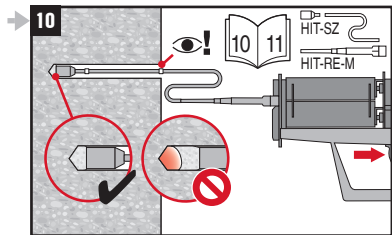




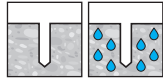
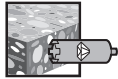
<b>6</b>			$d_0:$	$h_{ef}:$	
	<b>8</b>				





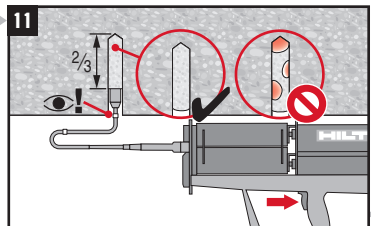
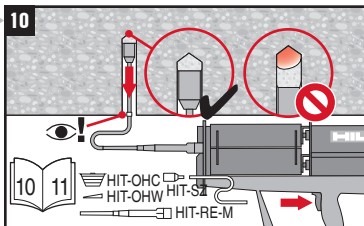
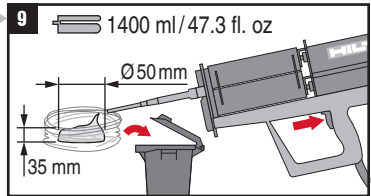
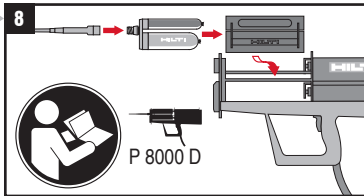
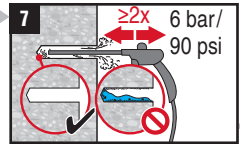
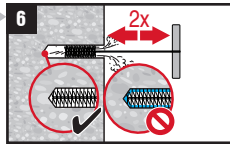
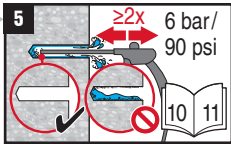
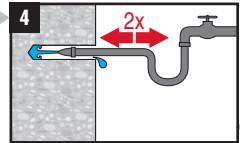
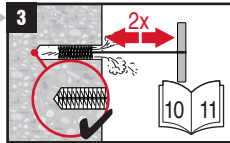
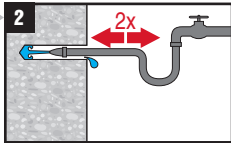
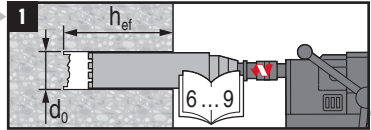
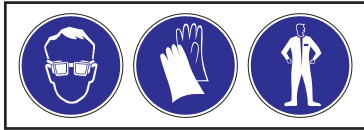


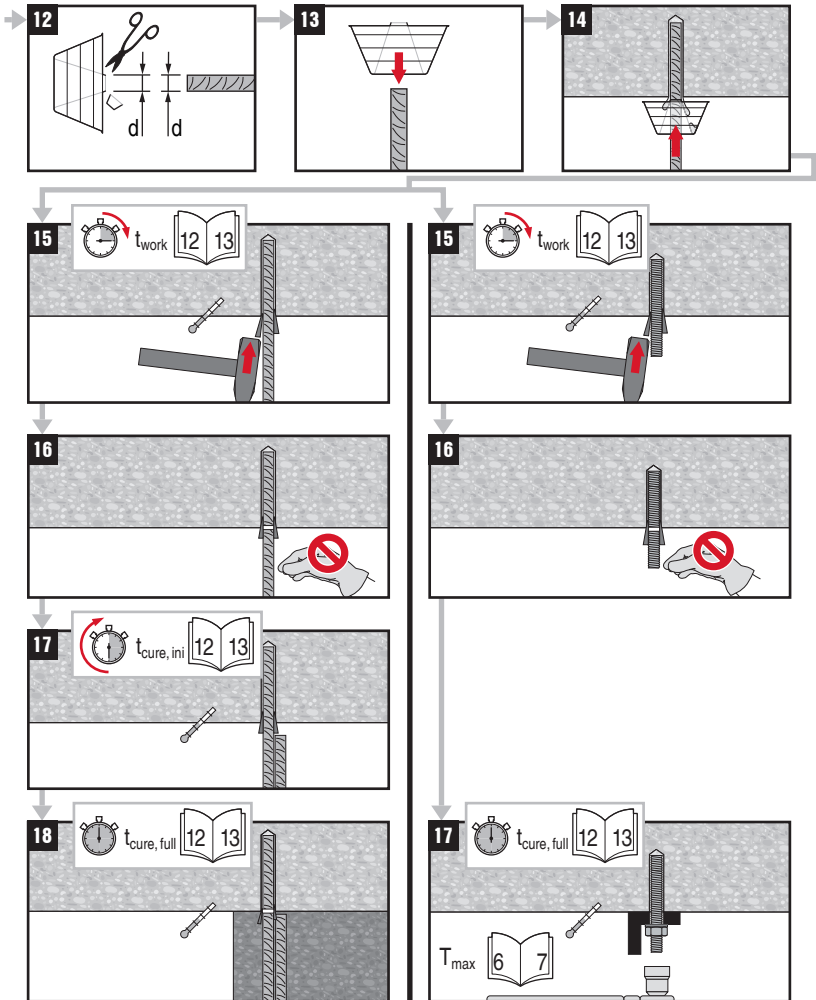
9



$d_0$ :  
 $\frac{9}{16}$ "... $1\frac{3}{4}$ "  
 14...55 mm

$h_{ef}$ :  
 $4\frac{1}{2}$ "...120"  
 110...3200 mm



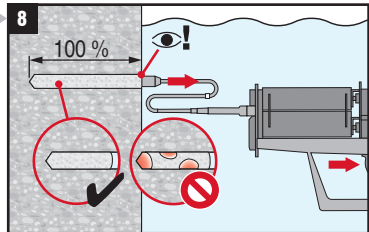
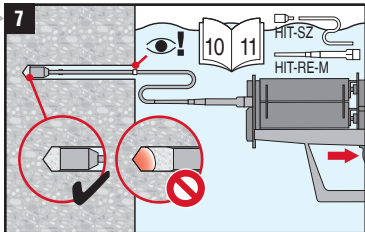
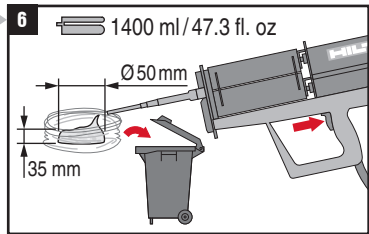
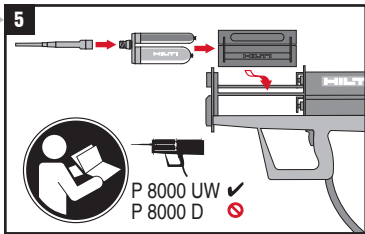
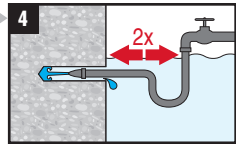
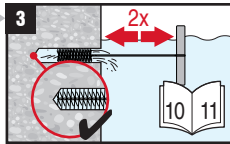
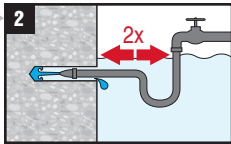
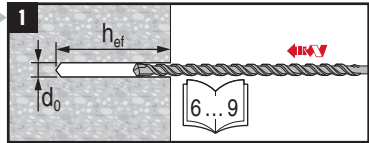
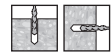


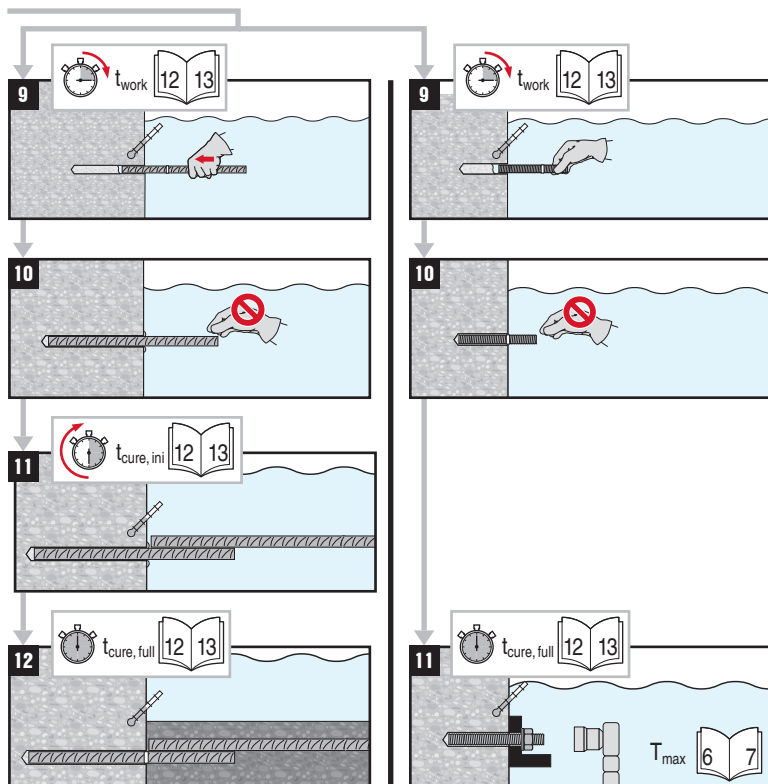
10



$d_0$ :  
9/16" ... 1 3/4"  
14...55 mm

$h_{ef}$ :  
4 1/2" ... 10"  
110...250 mm





## Hiiti HIT-RE 500 / 1400 Jumbo

### Adhesive anchoring system for rebar and anchor fastenings in concrete

- ▶ Prior to use of product, follow the instructions for use and the legally obligated safety precautions.
- ▶ See the Material Safety Data Sheet for this product.

#### Hiiti HIT-RE 500

Contains epoxy constituents. May produce an allergic reaction.(A)

**Contains:** reaction product: bisphenol-A-(epichlorhydrin) epoxy resin MW ≤ 700 (A), reaction product: bisphenol-F epichlorhydrin resin MW≤700 (A), m-xylenediamine, (B)



(B)



(A,B)



(A)



#### Danger

- H314 Causes severe skin burns and eye damage.(B)  
H317 May cause an allergic skin reaction.(A,B)  
H411 Toxic to aquatic life with long lasting effects.(A)

- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P260 Do not breathe vapours.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

#### Recommended protective equipment:

**Eye protection:** Tightly sealed safety glasses e.g.: #02065449 Safety glasses PP EY-CA NCH clear; #02065591 Goggles PP EY-HA R HC/AF clear;

**Protective gloves:** EN 374 / EN 388; Material of gloves: Nitrile rubber, NBR

Avoid direct contact with the chemical/ the product/ the preparation by organizational measures.

**Final selection of appropriate protective equipment is in the responsibility of the user**

#### Disposal considerations

##### Empty packs:

- ▶ Leave the Mixer attached and dispose of via the local Green Dot collecting system  
– or EAK waste material code 15 01 02 plastic packaging



##### Full or partially emptied packs:

- ▶ dispose of as special waste in accordance with official regulations.
  - EAK waste material code: 20 01 27\* paint, inks, adhesives and resins containing dangerous substances.
  - or waste material code: EAK 08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances.

**Content:** 2038 g / 71.9 oz

**Weight:** 1400 ml / 47.3 fl.oz

**Warranty:** Refer to standard Hilti terms and conditions of sale for warranty information.

Failure to observe these installation instructions, use of non-Hilti anchors, poor or questionable concrete conditions, or unique applications may affect the reliability or performance of the fastenings.

## Product Information

- Always keep this instruction for use together with the product.
- Ensure that the instruction for use is with the product when it is given to other persons.
- **Material Safety Data Sheet:** Review the MSDS before use.
- **Check expiration date:** See expiration date imprint on foilpack manifold (month/year). Do not use expired product.
- **Foil pack temperature during usage:** +5 °C to 40 °C / 41 °F to 104 °F.
- **Conditions for transport and storage:** Keep in a cool, dry and dark place between +5 °C to 25 °C / 41 °F to 77 °F.
- For any application not covered by this document / beyond values specified, please contact Hilti.
- **Partly used foil packs must be used up within one week.** Leave the mixer attached on the foil pack manifold in the dispenser and do not retract the pistons! Remove the air pressure hose and store under the recommended storage conditions. If reused, attach a new mixer and discard the initial quantity of anchor adhesive.



## WARNING

### ! Improper handling may cause mortar splashes. Eye contact with mortar may cause irreversible eye damage!

- Always wear tightly sealed safety glasses, gloves and protective clothes before handling the mortar!
- Never start dispensing without a mixer properly screwed on.
- Attach a new mixer prior to dispensing a new foil pack (snug fit).
- Caution! Never remove the mixer while the foil pack system is under pressure.
- Use only the type of mixer supplied with the adhesive. Do not modify the mixer in any way.
- Check foil packs and foil pack holder for proper functioning or damage - especially after they have been dropped. Dropping foil packs, also foil packs already inserted into the foil pack holder, is likely to cause damage leading to mal function.
- Never use damaged foil packs and/or damaged or unclean foil pack holders.

### ! Poor load values / potential failure of fastening points due to inadequate borehole cleaning. The boreholes must be dry and free of debris, dust, water, ice, oil, grease and other contaminants prior to adhesive injection.

- For blowing out the borehole - blow out with oil free air until return air stream is free of noticeable dust.
- For flushing the borehole - flush with water line pressure until water runs clear.
- Important! Remove all water from the borehole and blow out with oil free compressed air until borehole is completely dried before mortar injection (not applicable to hammer drilled hole in underwater application).

### ! Ensure that boreholes are filled from the back of the boreholes without forming air voids.

- If necessary, use the accessories / extensions to reach the back of the borehole.
- For overhead applications use the overhead accessories HIT-SZ / IP and take special care when inserting the fastening element. Excess adhesive may be forced out of the borehole. Make sure that no mortar drips onto the installer.
- If a new mixer is installed onto a previously-opened foil pack, the first trigger pulls must be discarded.
- A new mixer must be used for each new foil pack.

## Hilti HIT-RE 500 / 1400 Jumbo

### Resina de inyección para la fijación de anclajes y tacos en hormigón

- ▶ Lea estas instrucciones de uso y observe las indicaciones de seguridad antes de utilizar el producto.
- ▶ Consulte con las Hojas de Seguridad para este producto.

#### Hilti HIT-RE 500

Contiene componentes epoxídicos. Puede provocar una reacción alérgica. (A)

**Contiene:** producto de reacción: bisfenol-A-epiclorhidrina resinas epoxi MW  $\leq$  700 (A), producto de reacción: bisfenol-F-epiclorhidrina resinas epoxi MW  $\leq$  700 (A), m-fenilénbis(metilamina) (B)



(B)



(A,B)



(A)



#### Peligro

- H314 Provoca quemaduras graves en la piel y lesiones oculares graves.(B)  
H317 Puede provocar una reacción alérgica en la piel.(A, B)  
H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.(A)

- P280 Llevar guantes/prendas/gafas/máscara de protección.  
P260 No respirar el los vapores.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitarse inmediatamente las prendas contaminadas. Aclararse la piel con agua o ducharse.

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.

- P333+P313 En caso de irritación o erupción cutánea: Consultar a un médico.  
P337+P313 Si persiste la irritación ocular: Consultar a un médico.

#### Equipo de protección recomendado:

**Protección de ojos:** gafas de protección herméticas p. ej. gafas de seguridad PP EY-CA NCH claras, código #02065449; gafas protectoras PP EY-HA R HC/AF claras, código #02065591.

**Protección de manos:** EN 374/EN388; material de los guantes: caucho nitrílico (NBR). Tome las medidas oportunas para evitar el contacto directo con la sustancia química/el producto/el preparado.

**El usuario es el responsable final de la elección de un equipo de protección apropiado.**

#### Indicaciones de reciclaje

##### Cartuchos vacíos:

- ▶ Deseche el mezclador enroscado a través de los sistemas de recogida nacionales identificados con el Punto Verde
  - o el código de residuo LER: 15 01 02 embalajes de plastic.



##### Cartuchos llenos o parcialmente vacíos:

- ▶ Deberán eliminarse como residuos especiales de acuerdo con las normativas oficiales.
  - Código de residuo LER: 20 01 27\* Pinturas, tintas, adhesivos y resinas que contienen sustancias peligrosas.
  - o el código de residuo LER: 08 04 09\* Residuos de adhesivos y sellantes que contienen disolventes orgánicos u otras sustancias peligrosas.

**Contenido:** 2038 g / 71.9 oz

**Peso:** 1400 ml / 47.3 fl.oz



**Garantía** Para información sobre la garantía, consultar las condiciones de venta estándar de Hilti.

La inobservancia de las instrucciones de instalación, el uso de anclajes que no sean Hilti, malas o dudosas condiciones del hormigón y/o aplicaciones inadecuadas pueden afectar la fiabilidad y respuesta de las fijaciones.

## Información de producto

- Guarde siempre estas instrucciones de uso junto con el producto.
- En caso de entregar el producto a terceros, deben incluirse siempre las instrucciones de uso.
- **Hoja de datos de seguridad:** consulte la hoja de datos de seguridad antes de utilizar el producto.
- **Fecha de caducidad:** compruebe la fecha de caducidad (mes/año) de la pieza de conexión del cartucho. El producto no debe utilizarse después de la fecha de caducidad.
- **Temperatura del cartucho durante la utilización:** de +5 °C a 40 °C/de 41 °F a 104 °F.
- **Condiciones de transporte y almacenamiento:** lugar fresco, seco y oscuro con una temperatura de +5 °C a 25 °C/41 °F a 77 °F.
- Para aplicaciones que no se describen en las presentes instrucciones de uso o no se enmarcan en la especificación, póngase en contacto con Hilti.
- **Los cartuchos no agotados por completo deberán utilizarse antes de una semana.** En este caso, deje el cartucho con el mezclador enroscado en el aplicador neumático sin extraer el émbolo de presión. Desacople la herramienta del suministro de presión y guárdela conforme a las instrucciones. Antes de utilizarlo de nuevo, enrosca un nuevo mezclador y desechar la resina inicial.



## ADVERTENCIA

- ! **La resina puede salpicar si se utiliza incorrectamente. El contacto de la resina con los ojos puede causar daños oculares permanentes.**
  - Lleve gafas protectoras herméticas, guantes de protección y ropa de trabajo durante el trabajo.
  - No comience a exprimir si no se ha enroscado el mezclador.
  - Enrosque un mezclador nuevo antes de exprimir un cartucho nuevo. Asegúrese de que el asiento sea firme.
  - ¡Precaución! No desatorille nunca el mezclador cuando el sistema se encuentre bajo presión.
  - Utilice exclusivamente el modelo de mezclador suministrado con la resina. No modifique el mezclador en ningún caso.
  - Compruebe si el cartucho y el portacartuchos están en perfecto estado, en particular después de una caída. Si un cartucho se cae, aun cuando se encuentre dentro del portacartuchos, es posible que no funcione correctamente.
  - No utilice cartuchos en mal estado ni portacartuchos dañados o sucios.
- ! **Valores de sujeción deficientes/fallo de la fijación debido a limpieza insuficiente del taladro. Antes de inyectar la resina, los taladros deben estar secos y libres de restos de perforación, polvo, agua, hielo, aceite, grasa o cualquier otro agente contaminante.**
  - Soplado a presión del taladro: limpie el taladro con aire a presión sin aceite hasta que el aire de retorno esté libre de polvo.
  - Lavado del taladro: lave con una manguera de agua con la presión normal de la red hasta que salga agua limpia.
  - ¡Atención! Antes de añadir la resina es necesario extraer el agua del taladro y limpiar el taladro con aire a presión sin aceite hasta que quede completamente seco (no aplica para agujeros realizados con taladros de percusión en aplicaciones sumergidas en agua).
- ! **Verificar que el relleno del taladro se produce desde el fondo del taladro para que no se formen burbujas de aire.**
  - Si es necesario, utilice las prolongaciones para alcanzar el fondo del taladro.
  - En aplicaciones por encima de la cabeza, utilice el accesorio HIT-SZ/IP y preste especial atención al introducir el elemento de fijación. Puede salir resina sobrante del taladro. Asegúrese de que la resina no gotee sobre el usuario.
  - Si se enrosca un nuevo mezclador en un cartucho ya abierto, las primeras aplicaciones deben también desecharse.
  - Utilice un nuevo mezclador para cada cartucho nuevo.

## Hilti HIT-RE 500 / 1400 Jumbo

### Mortier de scellement pour ancrage de chevilles et d'armatures dans le béton

- ▶ Avant toute utilisation, bien lire le présent mode d'emploi ainsi que les directives de sécurité qui y sont mentionnées.
- ▶ Se reporter à la fiche signalétique du produit.

#### Hilti HIT-RE 500

Contient des composés époxydiques. Peut produire une réaction allergique.(A)

**Contient:** produit de réaction: bisphénol-A-épiclorhydrine résines époxydiques MW<700 (A), produit de réaction: bisphénol-F-épiclorhydrine résines époxydiques MW< 700 (A), m-phénylenebis(méthylamine) (B)



(B)



(A,B)



(A)



#### Danger

H314	Provoque des brûlures de la peau et des lésions oculaires graves.(B)
H317	Peut provoquer une allergie cutanée.(A,B)
H411	Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.(A)
P280	Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.
P260	Ne pas respirer les vapeurs.
P303+P361+P353	EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): enlever immédiatement les vêtements contaminés. Rincer la peau à l'eau/se doucher.
P305+P351+P338	EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées.Continuer à rincer.
P333+P313	En cas d'irritation ou d'éruption cutanée: consulter un médecin.
P337+P313	Si l'irritation oculaire persiste: consulter un médecin.

#### Équipement de protection recommandé :

**Protection des yeux :** Lunettes de protection hermétiques p. ex. : réf. 02065449 Lunettes de sécurité PP EY-CA NCH claires ; réf. 02065591 Masque de protection PP EY-HA R HC/AF clair ;

**Protection des mains :** EN 374 / EN 388 Éviter un contact direct avec le produit chimique / le produit / la préparation à l'aide de mesures d'organisation.

**Le choix final de l'équipement de protection adéquat relève de la seule responsabilité de l'utilisateur.**

#### Indications de recyclage

##### Emballages vides

- ▶ Laisser la buse mélangeuse vissée et procéder à l'élimination par le biais du système de collecte national Point Vert.
  - ou code déchets EAK : 15 01 02 Emballages en plastique.



##### Emballages pleins/à moitié vides :

- ▶ Les apporter à un centre de collecte des matières dangereuses conformément aux dispositions administratives.
  - Code déchets EAK : 20 01 27\* Peintures, encres d'impression, colles et résines artificielles, contenant des substances dangereuses.
  - ou code déchets EAK : 08 04 09\* Résidus de colles et composants pour joints, contenant des solvants organiques ou d'autres substances dangereuses.

**Contenu :** 2038 g / 71.9 oz

**Poids :** 1400 ml / 47.3 fl.oz

**Garantie:** pour tous détails concernant la garantie, consulter les conditions de vente Hilti.

Le non respect de ces instructions de pose, l'utilisation de chevilles autres qu'Hilti, la pose dans un béton faible ou matériau ou des applications particulières peuvent avoir un impact sur la sécurité et la performance de la fixation.

fr

## Information produit

- Le présent mode d'emploi doit toujours être conservé avec le produit.
- Ne pas donner le produit à un autre utilisateur sans lui fournir le mode d'emploi.
- **Fiche de sécurité sur les matériaux :** Avant toute utilisation, prendre connaissance des informations de sécurité sur les matériaux.
- **Date de péremption :** Contrôler la date de péremption (mois/année) imprimée sur le raccord de la cartouche. Ne plus utiliser un produit dont la date de péremption est dépassée.
- **Température des recharges en cours d'utilisation :** de +5 °C à 40 °C/41 °F à 104 °F.
- **Conditions de transport et de stockage :** dans un endroit frais, sec et à l'abri de la lumière à une température de +5 °C à 25 °C/41 °F à 77 °F.
- En cas d'applications qui ne sont pas décrites dans le présent mode d'emploi ou hors plage de valeurs spécifiées, s'adresser à Hilti.
- **Les cartouches souples entamées doivent être réutilisées dans l'intervalle d'une semaine.** Pour ce faire, laisser la cartouche souple avec l'embout mélangeur vissé dans le pistolet à injecter et ne pas faire revenir en arrière le piston de compression. Désolidariser l'alimentation en pression et stocker conformément à la réglementation. Avant réutilisation, visser une nouvelle buse mélangeuse et à nouveau, jeter le mortier extrudé lors des premières pressions.



## AVERTISSEMENT

**! En cas de manient non conforme, il y a risque de projection du mortier. Tout contact des yeux avec le mortier peut entraîner des lésions irréversibles !**

- Lors du travail, porter une protection des yeux étanche, des gants et des vêtements de protection !
- Ne jamais commencer l'extrusion si la buse mélangeuse n'est pas vissée !
- Avant de commencer l'extrusion d'une nouvelle cartouche souple, visser une nouvelle buse mélangeuse. Vérifier qu'elle est bien en place.
- Attention ! Ne jamais dévisser la buse mélangeuse lorsque le système est sous pression.
- Utiliser exclusivement le type de mélangeur fourni avec le mortier. Ne modifier la buse mélangeuse en aucun cas.
- Vérifier que la cartouche souple et le porte-cartouches ne sont pas endommagés – en particulier, s'ils sont tombés ! Les cartouches qui sont tombées, même si elles avaient déjà été placées dans le porte-cartouches, risquent de provoquer des dysfonctionnements.
- Ne jamais utiliser de cartouches souples endommagées ni de porte-cartouches endommagés/très encrassés.

**! Mauvaise fixation/défaillance du chevillage à cause d'un nettoyage insuffisant du trou foré. Avant de procéder à l'injection, s'assurer que le trou foré est exempt de débris de perçage, poussières, eau, glace, huile, graisse ou autres contaminants.**

- Soufflage du trou foré – souffler avec de l'air comprimé exempt d'huile, jusqu'à ce que l'air sortant soit exempt de toute poussière.
- Rinçage du trou foré – rincer le trou à l'eau à pression de conduite normale jusqu'à ce que de l'eau propre ressorte.
- Important ! Avant de remplir de mortier, évacuer l'eau du trou foré et le souffler avec de l'air comprimé exempt d'huile jusqu'à ce qu'il soit entièrement sec (Ne convient pas au trous forés au perforateur à percussion lors d'applications subaquatiques).

**! Veiller à ce que le remplissage se fasse à partir du fond du trou foré pour éviter la formation de bulles d'air.**

- Si nécessaire, utiliser des prolongateurs pour atteindre le fond du trou.
- En cas d'applications au plafond, utiliser l'accessoire HIT-SZ/IP et faire particulièrement attention lors de l'introduction de l'élément de fixation. L'excédent de mortier peut ressortir du trou foré. Veiller alors à ce que celui-ci ne goutte pas sur l'opérateur.
- Si une nouvelle buse mélangeuse est utilisée avec une cartouche déjà entamée, jeter également les premières pressions de mortier extrudé.
- Utiliser une nouvelle buse mélangeuse pour chaque cartouche souple neuve.

## Hilti HIT-RE 500 / 1400 Jumbo

### Sistema de ancoragem química para a fixação de ferros de armadura e ancoragens em betão

- ▶ Antes de utilizar este produto, siga as instruções de utilização e as precauções de segurança obrigatórias por lei.
- ▶ Consulte a Ficha de Segurança do Material para este produto.

#### Hilti HIT-RE 500

Contém componentes epoxídicos. Pode provocar uma reacção alérgica.(A)

**Contém:** poly[(phenyl glycidyl ether)-co-formaldehyde](A), produto de reacção: bisfenol-A-(epicloridrina) MG≤700 (A); m-fenilenobis(metilamina) (B)



(B)



(A,B)



(A)



#### Perigo

- H314 Provoca queimaduras na pele e lesões oculares graves.(B)  
H317 Pode provocar uma reacção alérgica cutânea.(A,B)  
H411 Tóxico para os organismos aquáticos com efeitos duradouros.(A)

- P280 Usar luvas de protecção/vestuário de protecção/protecção ocular/protecção facial.  
P260 Não respirar as vapores.

P303+P361+P353 SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): despir/retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.

P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continuar a enxaguar.

P333+P313 Em caso de irritação ou erupção cutânea: consulte um médico.

P337+P313 Caso a irritação ocular persista: consulte um médico.

#### Equipamento de protecção recomendado:

**Protecção dos olhos:** óculos de protecção por ex.: #02065449 Óculos de segurança PP EY-CA NCH claro; #02065591 Goggles PP EY-HA R HC/AF claro;

**Protecção das mãos:** EN 374 / EN 388; Deve-se evitar o contacto directo com o químico / o produto / o preparado através de medidas organizadas.

**A escolha final dos equipamentos de protecção apropriados é da responsabilidade do utilizador**

#### Nota sobre reciclagem

##### Cartuchos vazios

- ▶ Deixar o misturador enroscado e remover através dos sistemas de recolha nacionais, Ponto Verde  
– ou Código CER: 150102 Embalagens de plastic.



##### Cartuchos semiusados/novos:

- ▶ Remover de acordo com as normas e regulamentações legais sobre resíduos especiais.
  - Código CER: 20 01 27\* Tintas, produtos adesivos, colas e resinas, contendo substâncias perigosas.
  - ou Código CER: 08 04 09\* Resíduos de colas ou vedantes, contendo solventes orgânicos ou outras substâncias perigosas.

**Conteúdo:** 2038 g / 71.9 oz

**Peso:** 1400 ml / 47.3 fl .oz

**Garantia:** Para informações sobre a garantia, consulte os termos e condições de venda padrão da Hilti.

O não cumprimento destas instruções de colocação, a utilização de ancoragens que não sejam da Hilti, as condições fracas ou duvidosas do betão, ou aplicações fora do comum podem afectar a segurança ou a eficácia das fixações.

### Dados informativos sobre o produto

- Guarde estas instruções de utilização sempre em conjunto com o produto.
- Entregue o produto a outras pessoas apenas juntamente com as instruções de utilização.
- **Ficha de segurança:** antes de iniciar os trabalhos, tenha em consideração a ficha de segurança.
- **Prazo de validade:** veja o prazo de validade (mês/ano) na peça de junção do cartucho. Não utilize produtos cujo prazo de validade se encontre ultrapassado.
- **Temperatura do cartucho durante a utilização:** entre +5 °C e 40 °C/41 °F e 104 °F.
- **Condições de transporte e armazenamento:** em lugar fresco, seco e ao abrigo da luz, entre +5 °C e 25 °C/41 °F e 77 °F.
- Em caso de aplicações que não se encontrem descritas nas presentes instruções de utilização ou estejam fora das especificações, é favor dirigir-se à Hilti.
- **As sobras de cartuchos parcialmente usados devem ser aplicadas num prazo de uma semana.** Para o efeito, deixar o cartucho, com misturador enroscado, no dispensador e não reduzir a pressão. Desligar a alimentação de pressão e armazená-lo de acordo com as instruções. Antes da reutilização, enrosque um misturador novo e não utilize novamente a resina inicial.

### **AVISO**

**! No caso de manuseamento incorrecto, é possível que seja injectada resina. O contacto da resina com os olhos pode provocar lesões oculares permanentes!**

- Durante a realização de trabalhos, use óculos de protecção que fiquem bem justos, luvas de protecção e roupa de trabalho!
- Nunca comece a aplicação sem que o misturador esteja enroscado!
- Antes da aplicação de um novo cartucho, enrosque um misturador novo. Certifique-se de que está bem apertado.
- Cuidado! Nunca desenrosque o misturador quando o sistema está sob pressão.
- Utilize apenas o tipo de misturador fornecido com a resina. Não modifique o misturador de forma alguma.
- Comprovar se o cartucho e o suporte não estão danificados – em particular depois de terem caído ao chão! Cartuchos que tenham caído ao chão, mesmo depois de já estarem inseridos no respectivo suporte, podem causar anomalias.
- Nunca utilize cartuchos danificados e/ou suportes danificados ou sujos.

**! Valores de retenção deficientes/falha da fixação devido a limpeza insuficiente do furo. Os furos devem estar secos e livres de material de perfuração, pó, água, gelo, óleo, gordura ou outras impurezas antes de efectuar a injeção.**

- Limpar o furo por sopra – limpe o furo por sopra com ar isento de óleo, até que o ar saia sem pó.
- Lavar o furo – lave com uma mangueira com pressão normal, até sair água limpa.
- **Importante!** Antes de preencher com resina, retire a água do furo e sopra com ar isento de óleo até estar totalmente seco (Não utilizável em furos subaquáticos executados com percussão).

**! Certifique-se de que o enchimento do furo é efectuado a partir do fundo, para que não se formem bolhas de ar.**

- Se necessário, utilize os prolongadores para alcançar o fundo do furo.
- No caso de aplicações em suspensão, utilize o acessório HIT-SZ/IP e preste especial atenção ao inserir o elemento de fixação. Pode sair resina em excesso do furo. Certifique-se de que não pinga resina sobre o utilizador.
- Se for enroscado um misturador novo num cartucho já aberto, também não utilize o produto das primeiras bombadas.
- Para cada cartucho novo deverá utilizar-se um misturador novo.



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\* Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).



[www.hilti.com](http://www.hilti.com)

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