XCHEM® PRO

P201 POLYESTER

Complies with **AS 5216** and **NCC** (National Construction Code)

P201 XCHEM® PRO POLYESTER 300 | 420 ml

Description

A two-component chemical anchoring injection system possessing high bond strength and developed principally to anchor threaded studs into concrete, masonry and hollow substrate. Used widely for medium loads in both vertical and horizontal applications.

Applications	Highlights	
• Non-cracked concrete • Natural stone* • Solid and hollow masonry	NON-CRACKED	MASONRY
	COLOUR TECH	

Features	
• Suitable for medium loads in non-critical applications • Fast working times for early loading in time-sensitive applications • Styrene-free for indoors and in enclosed spaces	• Extremely versatile in solid/hollow masonry and concrete • Use in wet or flooded holes • Colour change technology • Nine helical mixing deflectors inside nozzle†

Material	PE POLYESTER
Finish	PE POLYESTER 300 / 420 ML CARTRIDGE

* Natural stone not included in ETA. Tensile load capabilities may vary in natural stone. Preliminary tests prior to application are recommended.



†Use with Nozzle MCXND3



Medium Duty

COST-EFFECTIVE AND VERSATILE ANCHORING IN A WIDE RANGE OF BASE MATERIALS.

ETA	CE	OPT 7	24/0509
		MASONRY	24/0508

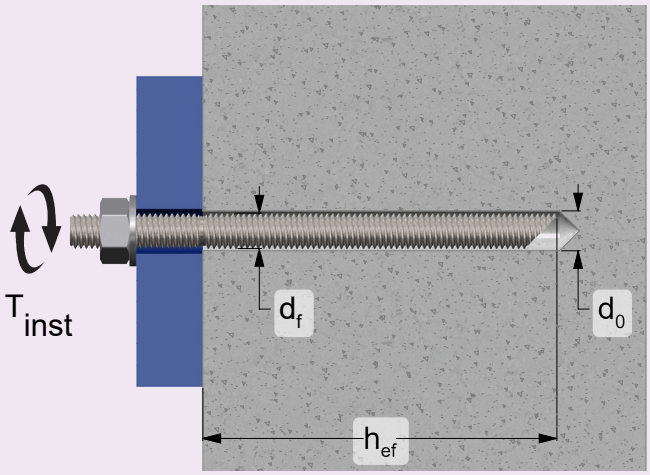
VOC / A+ GRADE	LEED TESTED	POTABLE WATER

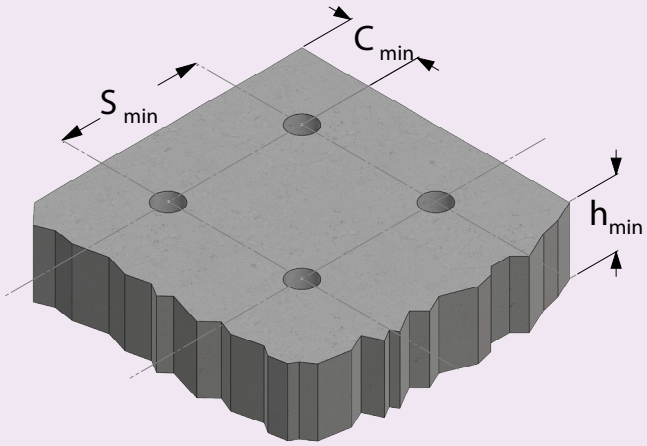
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Installation Parameters

		M8	M10	M12	M16
Effective Anchor Depth	h_{ef} (mm)	60–160	60–200	70–240	80–320
Hole Diameter	d_0 (mm)	10	12	14	18
Fixture Hole	d_f (mm)	9	12	14	18
Max. Torque	T_{inst} (Nm)	8	10	15	25

Member Thickness, Edge Distance and Spacing

		M8	M10	M12	M16
Min. Concrete Thickness	h_{min} (mm)	h_{ef} + 30mm ≥100mm		h_{ef} + 2 d_0	
Min. Edge Distance	C_{min} (mm)	0.5 h_{ef}			
Min. Spacing	S_{min} (mm)	0.5 h_{ef}			

Chemical Volume Calculator*

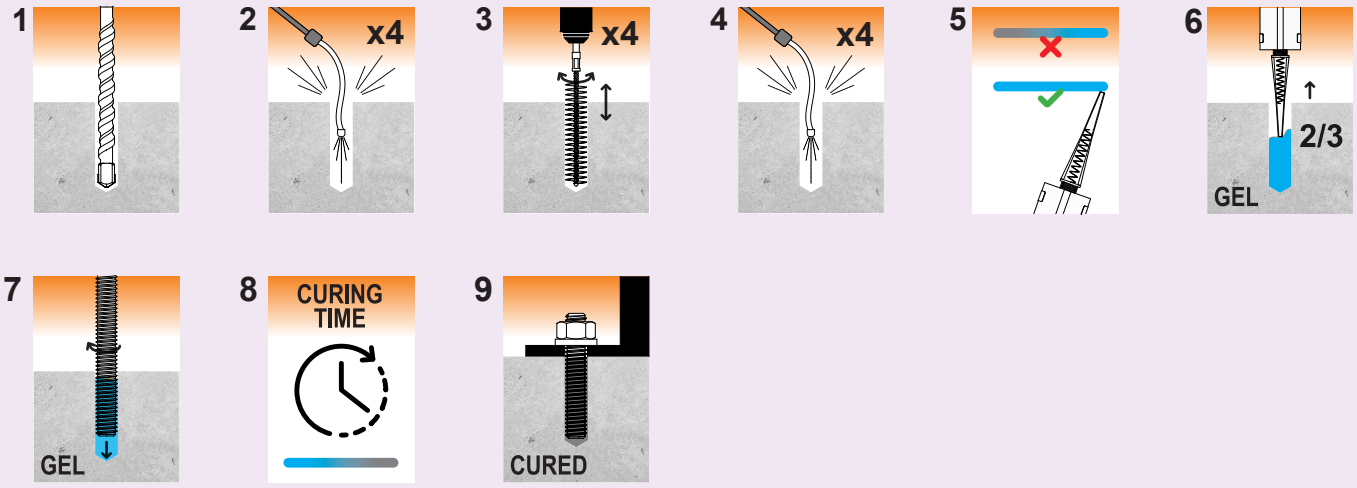
		M8	M10	M12	M16
Volume of Chemical per cm of Hole Depth	mL / cm	0.5	0.8	1.0	1.7
Standard Hole Depth	mm	80	90	110	125
Volume Required for Standard Hole	mL	4	7	11	21
Total Holes per 300mL Tube		68	42	25	13

*Volume calculation based on 2/3 standard hole depth filled and 5% product waste due to initial and residual mixing.

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Installation



Refer to technical assessment (**ETA**) document for full installation.

Use with **MCXND3**





Working and curing times (minutes)

Base Material Temp.	-5°C–0°C	0°C–9°C	10°C–19°C	20°C–29°C	30°C–40°C
Gel Working Time	40	20	9	5	3
Curing Time Dry Concrete	180	90	60	30	20
Curing Time Wet Concrete	360	180	120	60	40

Note: resin temperature must be at least 20°C.

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- **Design Resistance:** ultimate design loads in kN for single anchor in C20/25.
  Temperature 24°C average–40°C maximum (short-term temperature).
  No influence of edge distances or anchor spacing considered.
- **Shear Loads:** steel strength without lever arm.
- **Working Loads:** in kg for single anchor in C20/25.
  Temperature 24°C average–40°C maximum (short-term temperature).
  No influence of edge distances or anchor spacing considered.
  Calculated as Design Resistance/1.4 for both tension and shear.

Design Resistance Dry/Wet Hammer-Drilled Holes

Steel Decisive

Non-cracked Concrete			M8	M10	M12	M16
Embedment Depth (mm)			80	90	110	125
5.8	Tension	N_{Rd} [kN]	3.4	5.2	6.9	8.4
	Shear	V_{Rd} [kN]	7.2	12.0	16.8	31.2
8.8	Tension	N_{Rd} [kN]	3.4	5.2	6.9	8.4
	Shear	V_{Rd} [kN]	12.0	18.4	27.2	50.4
A4-70	Tension	N_{Rd} [kN]	3.4	5.2	6.9	8.4
	Shear	V_{Rd} [kN]	8.3	12.8	19.2	35.3

Design Resistance Flooded Holes

Non-cracked Concrete			M8	M10	M12	M16
Embedment Depth (mm)			80	90	110	125
5.8	Tension	N_{Rd} [kN]	2.9	3.2	4.7	6.3
	Shear	V_{Rd} [kN]	7.2	12.0	16.8	31.2
8.8	Tension	N_{Rd} [kN]	2.9	3.2	4.7	6.3
	Shear	V_{Rd} [kN]	12.0	18.4	27.2	50.4
A4-70	Tension	N_{Rd} [kN]	2.9	3.2	4.7	6.3
	Shear	V_{Rd} [kN]	8.3	12.8	19.2	35.3

Working Load Dry/Wet Hammer-Drilled Holes

Non-cracked Concrete			M8	M10	M12	M16
Embedment Depth (mm)			80	90	110	125
5.8	Tension	N_{Rw} [kg]	250	370	500	600
	Shear	V_{Rw} [kg]	520	870	1220	2270
8.8	Tension	N_{Rw} [kg]	250	370	500	600
	Shear	V_{Rw} [kg]	870	1330	1980	3660
A4-70	Tension	N_{Rw} [kg]	250	370	500	600
	Shear	V_{Rw} [kg]	600	930	1400	2560

Working Load Flooded Holes

Non-cracked Concrete			M8	M10	M12	M16
Embedment Depth (mm)			80	90	110	125
5.8	Tension	N_{Rw} [kg]	200	230	340	450
	Shear	V_{Rw} [kg]	520	870	1220	2270
8.8	Tension	N_{Rw} [kg]	200	230	340	450
	Shear	V_{Rw} [kg]	870	1330	1980	3660
A4-70	Tension	N_{Rw} [kg]	200	230	340	450
	Shear	V_{Rw} [kg]	600	930	1400	2560

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Typical Performance for Solid Masonry

Compressive Strength of Material ≥ 18 MPa
Density ρm ≥ 1600 kg/m³
Temp. Range -40°C to 40°C

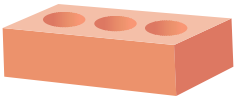


Size	Installation Parameters						Characteristic Resistance		Service Loads	
	Drill Hole Ø d_0	Min. Edge C_{min}	Min. Spacing S_{min}	Drill Depth h_1	Embedment Depth h_{ef}	Installation Torque T_{inst}	Tension N_{rk}	Shear V_{rk}	Tension F_N	Shear F_V
	(mm)	(mm)	(mm)	(mm)	(mm)	(Nm)	(kN)	(kN)	(kg)	(kg)
M6	8	120	240	85	80	2	4	6	116	175
M8	10									
M10	12	127.5	255	90	85			7		204
M12	14									

Note: safety factor of 3.5 applies for service loads.

Typical Performance for Hollow Masonry

Compressive Strength of Material ≥ 6 MPa
Density ρm ≥ 900 kg/m³
Temp. Range -40°C to 40°C



Size	Installation Parameters							Characteristic Resistance		Service Loads	
	Drill Hole Ø d_0	Sleeve Size	Min. Edge C_{min}	Min. Spacing S_{min}	Drill Depth h_1	Embedment Depth h_{ef}	Installation Torque T_{inst}	Tension N_{rk}	Shear V_{rk}	Tension F_N	Shear F_V
	(mm)		(mm)	(mm)	(mm)	(mm)	(Nm)	(kN)	(kN)	(kg)	(kg)
M6	12	12 x 80	100	120	85	80	1.5	2	2	58	58
M8											
M10	16	16 x 85			90	85					
M12											

Note: safety factor of 3.5 applies for service loads.

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Packaging

300 / 420 mL tube.

Storage

18 months (from 5–25°C) or at lower temperatures for shorter periods of time (e.g. during transport).
Higher temperatures shorten storage life. Store the cans in an upright position. Avoid direct sunlight.

Health, safe handling and disposal information

Additional information on safety, safe handling instructions, personal protective equipment and disposal information is in a safety data sheet. Safety data sheets are available at **hobson.com.au**



Warning



(B)

NOTE: instructions contained in this document are based on Hobson's research and experience.
However, due to specific conditions and working methods, preliminary tests prior to any application of XCHEM™ products are recomended.

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