

AT-HP BLUE — High-Performance Methacrylate Anchoring Adhesive

Material

Methacrylate

Features & Benefits

- Fast cure Colour change technology — changes from blue to grey when cured
- Styrene free
- Suitable for use in cracked & non-cracked concrete
- High bond strength acrylic anchoring adhesive
- All-weather
- Fire exposure rated
- Low odour
- Heavy loads
- Each cartridge is supplied with 2 mixing nozzles
- Use 300ml standard caulking gun, easy to dispense

Applications

- Timber Bottom Plate and Holdown Fixing
- Threaded Rod Anchoring
- Rebar Dowelling
- Balconies
- Facade
- Structural Steel
- Dry and Wet Concrete

Base Material

- Normal and Lightweight Concrete
- Grout-filled and Hollow* Concrete Block
- Solid and Hollow* Brick
- *When used in conjunction with screen tubes

Approvals

- ETA 14/0383 (Concrete);
- ETA 13/0416 (Masonry)
- CSTB Fire Test N° 26045738
- BRANZ Appraisal 983 (2018) for applications related to bottom plate fixings and holdown applications per NZS 3604 using AT-HP Blue.



AT-HP Blue

Specifications

Description	Symbol	Units	Threaded Rod Size (mm)							
			M8	M10	M12	M16	M20	M24	M27	M30
Nominal Insert Diameter	d	mm	8	10	12	16	20	24	27	30
Drill Hole Diameter	d _o		10	12	14	18	22	28	30	35
Minimum Embedment Depth	h _{ef,min}		60	60	70	80	90	96	108	120
Maximum Embedment Depth	h _{ef,max}		160	200	240	320	400	480	540	600
Clearance Hole Diameter in Fixture	d _f		9	12	14	18	22	26	30	33
Installation Torque	T _{inst,max}	Nm	10	20	40	80	150	200	270	300

Concrete Thickness, Edge Distance and Spacing

Description	Symbol	Units	M8	M10	M12	M16	M20	M24	M27	M30
Minimum Concrete Thickness	h _{min}	mm	h _{ef} + 30mm (≥100mm)			h _{ef} + 2d _o				
Minimum Edge Distance	c _{min}		40	50	60	80	100	120	135	150
Minimum Spacing	s _{min}		40	50	60	80	100	120	135	150
Critical Edge Distance	c _{cr,N}		1.5 x h _{ef}							
Critical Spacing	s _{cr,N}		3 x h _{ef}							

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Design Resistance — Single Anchor, No Concrete Edge or Spacing Influence

Description	Symbol	Units	M8	M10	M12	M16	M20	M24	M27	M30
Embedment Depth	h_{ef}	mm	70	80	110	140	180	220	240	260
Minimum Concrete Thickness			100	110	140	176	228	276	300	330
Uncracked Concrete										
TENSION	N_{Rd}	kN	5.6	7.8	14.4	22.5	33.1	51.6	63.3	68.6
 SHEAR	V_{Rd}		11.2	15.7	27.0	45.0	66.4	103	127	137

- Concrete strength is 30 MPa (cylinder) unreinforced, hole condition is "dry", and temperature range 24°C long-term/43°C short-term.
- Tabulated loads are valid at critical spacing and critical edge distance only.
- For spacing and edge distance influence, use Simpson's Anchor Designer™ Software for analysis.**
- N_{Rd} and V_{Rd} is based on use of a Grade 8.8 threaded insert. Verify capacity if using a different steel grade.
- All design resistances are derived from the product's ETA (European Technical Assessment).

Steel Design Resistance (Tension)

Description	Symbol	Units	M8	M10	M12	M16	M20	M24	M27	M30
Steel Grade 5.8	$N_{Rd,s}$	kN	12.2	19.3	28.0	52.7	82.0	118	153	187.0
Steel Grade 8.8			19.5	30.9	44.7	84.0	131	188	245	299.0
Stainless Steel A4			13.7	21.7	31.6	58.8	92.0	132	80.2	98.1

Steel Design Resistance (Shear)

Description	Symbol	Units	M8	M10	M12	M16	M20	M24	M27	M30
Steel Grade 5.8	$V_{Rd,s}$	kN	7.4	11.6	16.8	31.2	48.8	70.4	92.0	112
Steel Grade 8.8			11.8	18.6	27.0	50.4	78.4	113	147	150
Stainless Steel A4			8.2	13.0	19.2	35.3	55.1	79.5	48.3	58.9