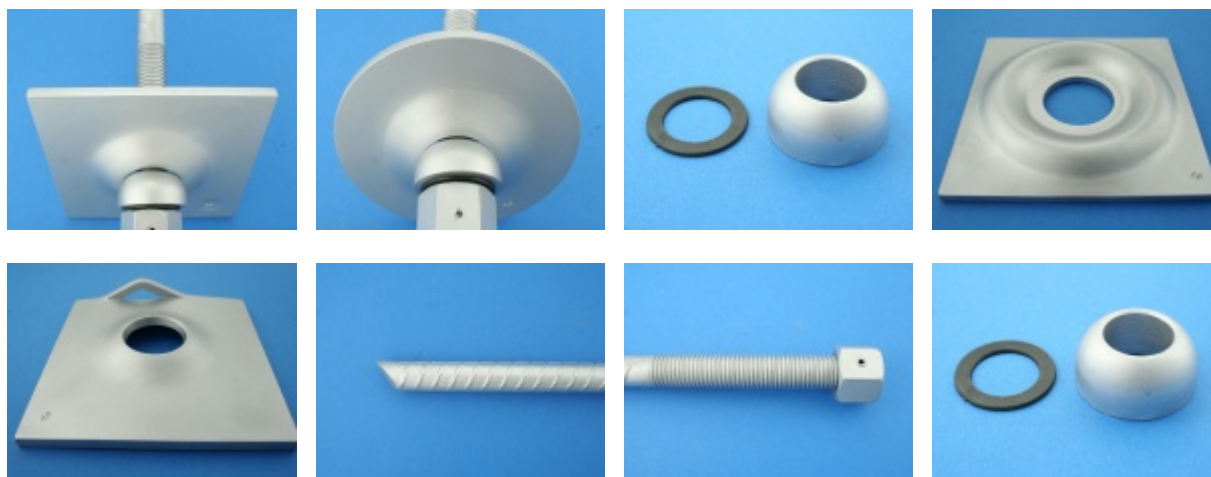




RESIN BOLTS TYPE APP , APG , APB



TECHNICAL SPECIFICATION

AP bolts are modern design anchors with load capacity of up to 300 kN and a nut locking system (shearpin).

APP; APG; APB anchor rod is made from a reinforcing bar of 21.70 mm in diameter according to ZN-95/AP-1; ZN-02/AP-6 made of the following type of steel:

Bolt	Steel grade	Re min (MPa)	Rm min (MPa)	A5 min (%)
APP	AP 600	400	600	19
APG	AP 700	550	700	20
	AP-E500	500	700	21
APB	AP 770	640	770	18

M24 nut is connected with the rod by means of a "SPIROL" $\varnothing 3$ or $\varnothing 6$ pin.

Spherical washer makes it possible to fix the anchor at 18° angle.

The anchor can be used with a square, round washers or square washer with an eyelet made of 8 or 10 mm plate.

TECHNICAL DATA

Specifications	Value
Rod diameter	dr = 21,70 mm

Thread size	M24
Thread lenght	150 mm
Rod lenght	od 400 do 4000 mm
Torque shearing the ø3 pin	80 ÷ 120 Nm
Torque shearing the ø6 "SPIROL" pin - (light)	40 ÷ 60 Nm
Torque shearing the ø6 "SPIROL" pin - (medium)	90 ÷ 120 Nm
Torque shearing the ø6 "SPIROL" pin - (heavy)	140 ÷ 160 Nm
Effective anchor capacity	APP – min 190 kN
	APG – min 230 kN
	APB – min 260 kN
	APP – 220 kN
Useful load	APG – 250 kN
	APB – 300 kN

INSTALLATION PROCEDURE

Put resin cartridges in the drill hole. Insert the anchor and rotate while pushing causing the resin to mix. During mixing, the nut does not turn as it is joined with the rod by means of a ø3 or ø6 pin.

Once the resin has set, the pin is sheared by turning the nut. Apply torque of at least 250 Nm to screw on the M24 nut in order to tension the anchor to the desired pre stress (initial tension) of minimum 30 kN.

APP, APG, APB adhesive anchors have a Certificate issued by Central Mining Institute in Katowice allowing the product to bear the safety mark No. B/1160/IV/2014.



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