

WIT-PE 500, OPTION 1

23.6

Cracked and uncracked concrete Performance data and characteristic installation values

Temperature range: 24 °C¹⁾/40 °C²⁾ (temperature ranges 43 °C/60 °C and 43 °C/72 °C see ETA-09/0040)

Anchoring base: Dry and moist concrete (anchoring base: Water-filled drill hole, see ETA-09/0040)

Pressure resistance of concrete: C20/25

Anchor diameter		M20			M24			M27			M30			
Effective anchoring depth		h _{ef} [mm]												
		90	170	240	96	210	288	108	240	324	120	270	360	
Cracked concrete														
Permissible central tensile load ³⁾ , (single anchor without edge influence)	Galvanized steel, 5.8	N _{perm} [kN]	10.5	21.8	30.8	11.5	29.6	40.6	13.7	38.1	51.4	16.1	47.6	63.5
	Galvanized steel, 8.8	N _{perm} [kN]	10.5	21.8	30.8	11.5	29.6	40.6	13.7	38.1	51.4	16.1	47.6	63.5
	Stainless steel A4 and HCR	N _{perm} [kN]	10.5	21.8	30.8	11.5	29.6	40.6	13.7	38.1	51.4	16.1	47.6	63.5
Permissible transverse load ³⁾ (single anchor without edge influence)	Galvanized steel, 5.8	V _{perm} [kN]	29.3	34.9	34.9	32.2	50.3	50.3	38.5	65.7	65.7	45.1	80.0	80.0
	Galvanized steel, 8.8	V _{perm} [kN]	29.3	56.0	56.0	32.2	80.6	80.6	38.5	105.1	105.1	45.1	128.0	128.0
	Stainless steel A4 and HCR	V _{perm} [kN]	29.3	39.4	39.4	32.2	56.8	56.8	34.5	34.5	34.5	42.0	42	42
Uncracked concrete														
Permissible central tensile load ³⁾ , (single anchor without edge influence)	Galvanized steel, 5.8	N _{perm} [kN]	14.7	38.1	58.1	16.2	52.3	83.9	19.3	63.9	100.2	22.6	76.2	117.3
	Galvanized steel, 8.8	N _{perm} [kN]	14.7	38.1	63.9	16.2	52.3	84.0	19.3	63.9	100.2	22.6	76.2	117.3
	Stainless steel A4 and HCR	N _{perm} [kN]	14.7	38.1	63.9	16.2	52.3	84.0	19.3	57.44	57.4	22.6	70.2	70.2
Permissible transverse load ³⁾ (single anchor without edge influence)	Galvanized steel, 5.8	V _{perm} [kN]	34.9	34.9	34.9	45.2	50.3	50.3	54.0	65.7	65.7	63.2	80.0	80.0
	Galvanized steel, 8.8	V _{perm} [kN]	41.1	56.0	56.0	45.2	80.6	80.6	54.0	105.1	105.1	63.2	128.0	128.0
	Stainless steel A4 and HCR	V _{perm} [kN]	39.4	39.4	39.4	45.2	56.8	56.8	34.5	34.5	34.5	41.8	42.0	42.0
Drill nominal dia.	d ₀ [mm]	24			28			32			35			
Drill hole depth/Anchoring depth	h ₀ /h _{ef} [mm]	90	170	240	96	210	288	108	240	324	120	270	360	
Minimum edge spacing	c _{min} [mm]	100			120			135			150			
Minimum axial spacing	s _{min} [mm]	100			120			135			150			
Minimum component thickness	h _{min} [mm]	138	218	288	152	266	344	172	304	388	190	340	430	
Through-hole in the component being connected	d _f ≤ [mm]	22			26			30			33			
Torque for anchoring	T _{inst} ≤ [Nm]	120			160			180			200			

¹⁾ Maximum long-term temperature

²⁾ Maximum short-term temperature

³⁾ The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of γ_F = 1.4 have been taken into account. With a combination of tensile and transverse loads, with edge influence and anchor groups, please observe the EOTA Technical Report TR 029 "Design of Bonded Anchors".

Minimum hardening times

Temperature in anchoring base	Processing time	Minimum hardening time in dry concrete	Minimum hardening time in wet concrete
≥ +5 °C	120 min	50 h	100 h
≥ +10 °C	90 min	30 h	60 h
≥ +20 °C	30 min	10 h	20 h
≥ +30 °C	20 min	6 h	12 h
≥ +40 °C	12 min	4 h	8 h

Würth system components

