INJECTION SYSTEMS

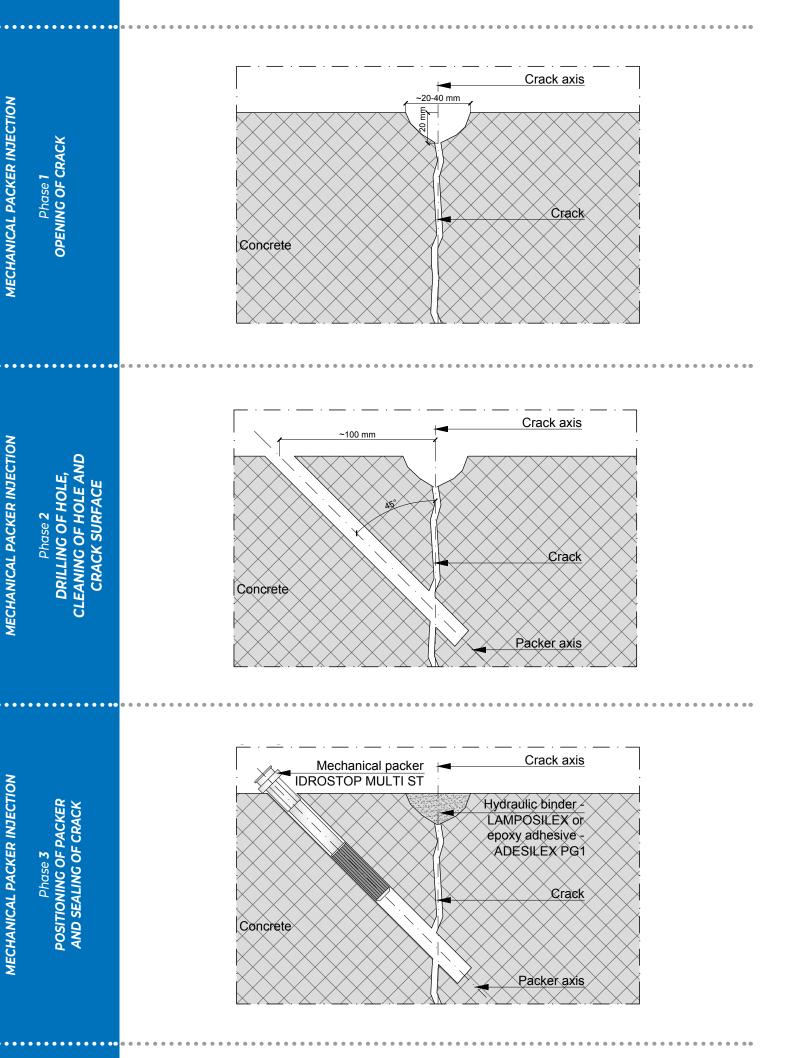
HOTEL:

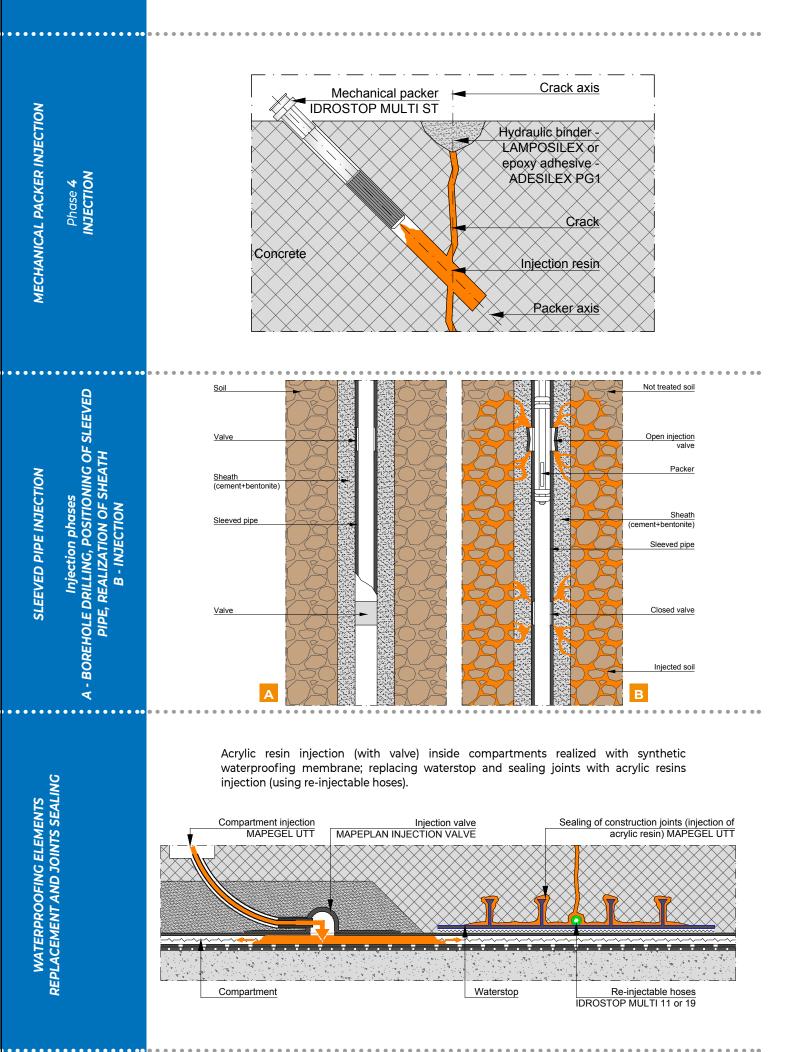
S MAN

CONTRACTOR









		WATER	SOIL INJECTION				
		CONDITION	clay	silt	sand		gravel
	2 PRODUCTS				permeability)	grained (high permeability)	
🕭 M	APEI [®]		10-8	10-6	10 ^{-s}	10 ⁻³	10 ⁻²
	presence of water: 30-40 times, reaction time: fast, accelerator is needed)	000 ====					
	RESFOAM 1 KM HS (one component, high stability, foaming in presence of water, foaming ratio in presence of water: 30-40 times, reaction time: fast, accelerator is needed)	000 IIII					
	RESFOAM 1 KM FLEX (one-component, foaming only in presence of water, low viscosity, low and slow foaming ratio depending on water quantity, reaction beginning/ending: 20°-1/1'-5', accelerator is needed)	000 IIII					
polyurethane	FOAMJET F (two-component, foaming in presence and in absence of water, foaming ratio: 20-30 times, reaction beginning/ending: 10°/3'-5')	کی ﷺ					
	FOAMJET F ST (two-component, structural, foaming in presence and in absence of water, foaming ratio in presence of water: 7-8 times, foaming ratio in absence of water: 1 time, reaction beginning/ending: 4'-5'/20'-30')	۵۵ 🛲					
	FOAMJET T (two-component, foaming only in presence of water, foaming ratio in presence of water: 3-10 times, reaction beginning/ending: 30"-1'15'/3'-8')	000 ====					
	FOAMJET 260 LV (two-component, elastic, low viscosity, not expanding, reaction time: 7'-180')	000 IIII					
	PURCEL (one component, flexible, foaming in presence of water, foaming ratio in presence of water: 10-20 times, reaction time: 55")	000					
	SILICAJET EXP / SILICAJET EXP-E (two-component, foaming in presence and in absence of water, foaming ratio: up to 40 times, reaction beginning/ending: 10"-30"/2'-3')	000====					
organo-	SILICAJET EXP/4 (two-component, structural, foaming in presence and in absence of water, low foaming ratio, reaction beginning/ending: 15"-20"/3'-5')	000====					
mineral	SILICAJET ST (two-component, structural, not expanding, reaction beginning/ending: 1'-2/5'-10')	۵۵ 🚃					
	SILICAJET ANK (two-component, structural, not expanding, reaction beginning/ending: 10"-2/5')	000 ====					
	SILICAJET ST HP (two-component, structural, not expanding, reaction beginning/ ending: l'-2/5'-10')	۵۵ 🛲					
acryilic	MAPECEL UTT SYSTEM (three-component, quadri-component, low viscosity, not expanding, gel time: 30°-45')	۵۵ 🛲					
ероху	EPOJET LV (two-component, low viscosity, structural, not expanding, workability/ hardening: 30'-70/5-8h)	X					
	MAPEJET SYSTEM N (two-component, low viscosity, workability: 30')						
	MAPEJET SYSTEM LP (two-component, low viscosity, workability: 3h)						
	MAPEJET SYSTEM NS 15 (two-component, very low viscosity, workability: 45')						
	MICROCEM SERIES (micro-fine hydraulic binder for ground consolidation and waterproofing injection of cementitious-based mixes)	۵ 🚃					
cementitious grout with wash-out resistance	MAPEGROUT COMPACT SERIES (premixed product with controlled rheology and fluidity)	۵۵ 🚃					
expanding	EXPANJET (one-component pre-mixed mixture, high degree of fineness, expanding ratio: 0.7)	۵	М	M			
extended workability	MAPEQUICK CBS SYSTEM (two-component system for cement-based grout, workability: 72 h)	۵۵ 🚃					
	oolyurethane organo- nineral cryilic poxy cryilic poxy cryilic poxy cryilic poxy cryilic poxy	region- interest PESFOANT 10M HS (one component, high stability, forming in presence of water, four viscolity, incident in ratio in presence of water. 30-40 times, reaction time. Fast, accelerator is needed; ResPOANT 10M FLEX (one-component, forming only in presence of water, low viscolity, bw and slow forming ratio depending on water quantity, reaction beginning/ending; 2017/17/57, accelerator is needed; ResPOANT 10M FLEX (one-component, forming in presence of water, forming 2017/17/57, accelerator is needed; ResPOANT 10M FLEX (one-component, forming in presence of water, forming 2017/17/57, accelerator is needed; ResPOANT 10M FLEX (one-component, forming in presence of water, forming 2017/17/57, accelerator is needed; ResPOANT 10M FLEX (one-component, forming in presence of water, forming resence of water; 31:00 times, reaction beginning/ending; 307-315/3*9; ResPOANT 11M FLEX (bre-component, forming in presence of water, forming ratio in presence of water; 10-20 times, reaction beginning/ending; 107-307/2*31 SULCASET EXP / SULCASET EXP-E (two-component, forming in presence of water, forming ratio in presence of water; 10-20 times, reaction beginning/ending; 107-307/2*31 SULCASET ST (PW-component, structural, not expanding, reaction beginning/ending; 17/2/5*01 SULCASET ST (PW-component, structural, not expanding, reaction beginning/ending; 17/2/5*01 SULCASET ST HP (Wo-component, low viscosity, workability; 107/2/5*1) SULCASET ST HP (Wo-component, low viscosity, workability; 30) MAPECECEL UT SYSTEM (three-component, quadri-component, low viscosity,	region Figse Autor IDM (Figse component, floating only in presence of water, foaming ratio in presence of water, 53-40 times, reaction time fast, accelerator is meteod, accelerator is meteo	spread SPECTOM 144 (one-component, framing only in presence of vates, forming ratio presence of vates, forming ratio in presence of va	spread of weithing and a presence of weithing and a presence of weithing watch is a scale and or weithing watch is a scale and watch is a scale and or weithing watch is a scale and watch is a scale and watch is a scale and or weithing watch is a scale and watch is a s	Under the second product and the product provide processes of state. During state in the second product	Instrumental loss comparents forming any presente of each loss constraints in the exception of the loss of th

rock	FILLING OF CAVITY	CONCRETE INJECTION		TBM INJECTION		COMPARTMENT INJECTION	RE-INJECTABLE HOSES	
		STRUCTURAL	WATERPROOFING	CERTIFICATION	PRE-GROUTING	OVERLEAF SEGMENTS		INJECTION
10								
				CE (EN 1504-5)				
				CE (EN 1504-5)				
				CE (EN 1504-5)				
				BS 6920:2014				
				CE (EN 1504-5)				
				CE (EN 1504-5)				
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				CE (EN 1504-5)				
				CE (EN 1504-5) BS 6920:2014				
				CE (EN 1504-5)				

EQUIPMENT	COMPATIBILITY			
IDROSTOP MULTI 11 (PVC re-injectable hoses)	injection resins			
IDROSTOP MULTI 19 (PVC re-injectable hoses)	micro-fine cements			
IDROSTOP MULTI ST (mechanical packer, different sizes available)	injection resins, chemical injection			

LEGEND							
x	dry condition	000	pressurized water inflow				
۵	surface damp, water leakage		water saturated soils				
66	water inflow	м	soil mechanical re-compression				



MAPEI UTT Underground Technology Team

UTT TECHNICAL ASSISTANCE PROVIDES:

- Great technical skills based on deep knowledge of products, production phases and construction systems;
- Assistance during construction and design phases, for a perfect focus on the correct products and technical solutions;
- Global intervention, 24 hours a day and 365 days a year;
- Production optimization and consequent costs reduction.

THE WORLD OF UTT

- SHOTCRETE TECHNOLOGY
- MECHANIZED TUNNELING PRODUCTS
- DRILLING AND GROUND CONSOLIDATION PRODUCTS
- INJECTION SYSTEMS
- WATERPROOFING SYSTEMS
- TUNNEL MAINTENANCE, RENOVATION AND COATING PRODUCTS

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