

Injection Products – Polyurethanes (PU) and Polyurea Silicates (PUS)

Injection Product	MasterRoc MP 351 LV	MasterRoc MP 355 IK	MasterRoc MP 355 IK DW	MasterRoc MP 355*	MasterRoc MP 358 SC	MasterRoc MP 367 Foam	MasterRoc MP 368	MasterRoc MP 368 TIX	Notes
Product Category	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurea Silicate	Polyurea Silicate	Polyurea Silicate	
Main Application	Stopping water ingress Ground stabilization Concrete repair	Stopping water ingress Ground stabilization Concrete repair	Stopping water ingress Small void filling Concrete repair	Stopping water ingress Ground stabilization Concrete repair	Strata consolidation Small void filling Concrete repair	Cavity filling	Ground consolidation Strata consolidation Concrete crack repair	Ground consolidation Strata consolidation Concrete crack repair	
Single or Plural Components (excluding accelerator)	Single	Single	Single	Plural	Plural	Plural	Plural	Plural	
Resin Viscosity, cP/mPa.s	100	320	700	Part A: 320** / Part B: 240** (Estimated viscosity of the mixed material is 280, right after mixing)	Part A: 300 / Part B: 300 (Estimated viscosity of the mixed material is 300, right after mixing)	Part A: 70 / Part B: 170 (Estimated viscosity of the mixed material is 120, right after mixing)	Part A: 300 / Part B: 115 (Estimated viscosity of the mixed material is 208, right after mixing)	Part A: 490 / Part B: 115 (Estimated viscosity of the mixed material is 303, right after mixing)	**At 68 °F (20 °C). All others at 73 °F (23 °C).
Mixing Ratio	Accelerator up to 10% of Resin by volume	Accelerator up to 10% of Resin by volume	Accelerator up to 10% of Resin by volume	1:1 by volume	1:1 by volume	1:1 by volume	1:1 by volume	1:1 by volume	
Reaction Time / Setting Time	8 to 58 s	10 s to 5 min	15 s to 6 min	Vary – depending on the choice and the dosage of accelerator	30 to 80 s	10 to 55 s	2 to 3 min	3 to 4 min	Highly dependent on product temperature, ground temperature and other factors
Appearance (cured)	Flexible foam	Semi-rigid foam	Flexible foam	With water: Rigid foam; Without water: Stiff, rubber-like material	Rigid material	Rigid foam	Hard resin	Hard resin	
Expansion Rate	30 - 50	25 - 30	20 - 30	Vary – depending on the choice and dosage of accelerator / water	3 without water; 8 with water	Up to 30	1	1	Depending on temperature, mixing ratio and other factors
Flexibility	Medium	Low	Medium	Low	Low	Low	Low	Low	
Adhesive Properties (wet surface)	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Good	
Pump	Single-component injection pump	Single-component injection pump	Single-component injection pump	Two-component injection pump with a static in-line mixer	Two-component injection pump with a static in-line mixer	Two-component injection pump with a static in-line mixer	Two-component injection pump with a static in-line mixer	Two-component injection pump with a static in-line mixer	
Additional Notes	product requires moisture / water to activate	product requires moisture /water to activate	product requires moisture /water to activate	Three optional accelerators for various types of applications	Less water sensitive	Not water sensitive	Not water sensitive, works well in low temperatures	Thixotropic feature, not water sensitive, works well in low temperatures	
Packaging (primary)	Resin: 5 gal (19 L) pails; Accelerator: 0.6 gal (2.3 L) bottles	Resin: 6 gal (22 L) pails; Accelerator: 0.7 gal (2.5 L) bottles	Resin: 6 gal (22 L) pails; Accelerator: 0.7 gal (2.5 L) bottles	Part A & Part B: 49 gal (185 L) steel drums	Part A & Part B: 49 gal (185 L) steel drums	Part A & Part B: 53 gal (200 L) steel drums	Part A & Part B: 53 gal (200 L) steel drums	Part A: 50 gal (200 L) steel drums Part B: 52 gal (197 L) steel drums	Other packaging available upon request.

Chemical Grout Performance Guide

A Technical Guide to MasterRoc[®] Injection Products by Performance



Injection Products – Acrylics

Injection Product	MasterRoc MP 300	Notes	
Viscosity of Mixed Material, cP/mPa.s	2 to 5	At 68 °F (20 °C); depending on the mixing ratio	
Gel Time	10 s to 30 min	Highly dependent on product temperature, ground temperature, accelerator dosage and hardener dosage	
Cured Material Property	Elongation at Break	N/A	
	Swelling	Yes	Swelling feature helps fill cracks and fissures
	Appearance	Flexible soft gel	
	Flexibility	High	
Hardened Material Property	Adhesive / Bond Strength	Excellent	
	Strength (Neat resin)	Soft gel	
	Re-swelling (after dry cycles)	Excellent re-swell property	
	Chemical Resistance	Acids and Bases	Refer to the complete chemical resistance list
Splitting Resin with Water	Up to 1:3		
Pot Life (activated), hours	8	At 68 °F (20 °C)	
Pump	Two-component injection pump		
Packaging (primary)	Resin	44 lb (20 kg) pail	
	Accelerator	6.2 lb (2.8 kg) bottle	
	Hardener	2.2 lb (1 kg) bottle	
	Emulsion	44 lb (20 kg) pail (Optional)	



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construction materials and to enable the reduction of CO2 emissions in the production of concrete. Founded in 1909, Master Builders Solutions has ca. 1600 employees operating 35 production sites globally, supporting their customers in mastering their building challenges of today – for a decarbonised future.

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