

SXL

Description

Trowelable, **ceramic-grade** for the rebuilding of worn areas or the repair of damaged equipment

Typical applications

- worn key-ways
- scored machine beds
- cracked engine bodies
- oversized bearing houses

Typical work size

Partial repairs

Working life at 20 °C (68 °F)

20 minutes

Cure time at 20 °C (68 °F)

Machinable	2 h
Full mechanical load	24 h
Full chemical load	48 h

Film thickness

Minimum:	0.1 mm 4 mils
Maximum:	unlimited
Recommended:	> 1 mm 40 mils

Machinable by

grinding / milling / lathe



KXL

Description

Brushable, semi self-leveling **ceramic-grade** for the lining of surfaces impacted by liquids & increasing its efficiency

Typical applications

- eroded pump casings
- cavitated valves
- corroded heat exchangers
- worn hydraulic rams

Typical work size

Full linings

Working life at 20 °C (68 °F)

30 minutes

Cure time at 20 °C (68 °F)

Machinable	6 h
Full mechanical load	24 h
Full chemical load	72 h

Film thickness

Minimum:	0.1 mm 4 mils
Maximum:	unlimited
Recommended:	1 mm 40 mils

Machinable by

grinding / milling / lathe



CXL

Description

Trowelable, **carbide-grade** for the protection of dry/wet surfaces extremely impacted by colliding solids

Typical applications

- centrifuges / decanters
- turbo separators
- pulverizing mills / pulpers
- pipe elbows

Typical work size

Partial linings

Working life at 20 °C (68 °F)

25 minutes

Cure time at 20 °C (68 °F)

Machinable	3 h
Full mechanical load	24 h
Full chemical load	48 h

Film thickness

Minimum:	3.0 mm 120 mils
Maximum:	unlimited
Recommended:	>5 mm 200 mils

Machinable by

grinding only



	SXL	KXL	CXL
Material basis (2-component compound for manual self-mixing, solvent free (100 % solids))	Polymer-Ceramic	Polymer-Ceramic	Polymer-Ceramic with larger carbide components
Package size	1 kg 2.2 lbs	1 kg 2.2 lbs	2 kg 4.4 lbs
Color	dark grey similar to RAL 7031	light grey similar to RAL 7035	dark brown similar to RAL 8017
Surface preparation required for maximum adhesion	mechanical roughening or gritblasting / degreasing	mechanical roughening or gritblasting / degreasing	mechanical roughening or gritblasting / degreasing
Processing method manual hand operated	trowel	brush / casting / injection	trowel
Consistency in mixed status	paste-like (creamy)	viscous liquid (self-leveling)	paste-like (thixotropic)
Mixing ratio by weight and volume	4 : 1 by weight 3 : 1 by volume	14.3 : 1 by weight no volume ratio possible	2 : 1 by weight 2 : 1 by volume
Film thickness minimum / recommended / maximum	0.1 mm / 1 mm / infinite 4 mils / 40 mils / infinite	0.1 mm / 1 mm / infinite 4 mils / 40 mils / infinite	3 mm / 5 mm / infinite 120 mils / 200 mils / infinite
Consumption theoretically per mm (40 mils) film thickness	1,950 g/m ² 0.40 lb per 40 mils/sqft	2,200 g/m ² 0.45 lb per 40 mils/sqft	2,050 g/m ² 0.42 lb per 40 mils/sqft
Processing time at 20 °C (68 °F)	20 minutes	30 minutes	25 minutes
Overcoating time at 20 °C (68 °F)	1 h minimum 6 h maximum	1 h minimum 6 h maximum	1 h minimum 6 h maximum
Solidification at 20 °C (68 °F) – dependent on stress	> 1 day	> 1 day	> 1 day
Hardness A.S.T.M. D2240-68	95 Shore D	97 Shore D	93 Shore D 9 Mohs (carbide filler)
Density DIN EN ISO 1183-2	1.95 g/cm ³ 0.070 lb/in ³	2.2 g/cm ³ 0.079 lb/in ³	2.05 g/cm ³ 0.074 lb/in ³
Compressive strength A.S.T.M. D695	156 N/mm ² 22,625 psi	141 N/mm ² 20,450 psi	109 N/mm ² 15,809 psi
Tensile bond strength on 1.0037 / ASTM A36 mild steel	20 N/mm ² 2,900 psi	20 N/mm ² 2,900 psi	21 N/mm ² 3,045 psi
Tensile shear adhesion on 1.4301 / AISI 304 stainless steel (A.S.T.M. D1002)	21 N/mm ² 3,045 psi	21 N/mm ² 3,045 psi	21 N/mm ² 3,045 psi
Tensile strength A.S.T.M. D412-16	22 N/mm ² 3,190 psi	21 N/mm ² 3,045 psi	not specified not specified
Flexural strength A.S.T.M. D790	68 N/mm ² 9,862 psi	58 N/mm ² 8,412 psi	54 N/mm ² 7,832 psi
Impact resistance (by IZOD) A.S.T.M. D256 „E“	36 J/m 0.67 ft.lb/in	66 J/m 1.23 ft.lb/in	not specified not specified
Temperature resistance dry / wet	+200 °C / +90 °C +390 °F / +194 °F	+200 °C / +60 °C +390 °F / +140 °F	+200 °C / +90 °C +390 °F / +194 °F
Linear abrasion (Taber®) A.S.T.M. D-4060 (NATO) – CS17, dry, 1 kg, 1.000 rev.	no measurable loss	no measurable loss	no measurable loss
Chemical resistance see MetaLine resistance chart: I061ME.pdf	usually pH 2-13	usually pH 2-13	usually pH 2-13
Mechanical Processing by ceramic-carbide or diamond-tipped tools	machinable by grinding / milling / lathe	machinable by grinding / milling / lathe	only grinding
Approvals dry / wet	USDA (incidental food) Lloyds Register of Shipping	USDA (incidental food) BS 6920 (drinking water) AS/NZS 4020:2005 (drinking water)	USDA (incidental food)
Shelf-life	4 years	4 years	4 years