SSGC/LP/EBMRC/30/2081524

Spec No.	T-MAINT-LP-EBMRC-01-25		
Date	16/06/25	Rev	00

SUI SOUTHREN GAS COMPANY LIMITED

TECHNICAL SPECIFICATIONS
EPOXY BASED METAL REPAIR COMPOSITE

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Mixing & Application Properties	
Type:	Two-part epoxy-based metal repair composite
Mix Ratio by Weight (Base : Solidifier):	5 : 1
Mix Ratio by Volume (Base : Solidifier):	3 : 1
Slump Resistance	Nil at 1.0 inch (25.4 mm)
Environmental Properties:	
VOC content (ASTM D2369/EPA ref. 24)	0.09% / 2.38 g/L
Mechanical Properties:	
Compressive Strength (ASTM D695)	12800 psi (88.2 MPa) at 22°C (77°F) 17950 psi (123.8 MPa) at 100°C (212°F)
Compressive Modulus (ASTM D695)	3.3×10^5 psi (2.3 GPa) at 22°C (77°F) 4.1×10^5 psi (2.8 GPa) at 100°C (212°F)
Tensile Strength at break (ASTM D638)	4596.9 psi (31.7 MPa) at cure temperature of 22°C (77°F) 6351.4 psi (43.8 MPa) at cure temperature of 100°C (212°F)
Young's Modulus (ASTM D638)	$1.38 * 10^6$ psi (9.5 GPa) at cure temperature of 22°C (77°F) $1.36 * 10^6$ psi (9.4 GPa) at cure temperature of 100°C (212°F)
Hardness (Shore D) (ASTM D2240) **Hardness (Barcol 935) (ASTM D2583)**	81 at 22°C (77°F) & 100°C (212°F) cure 84 at 22°C (77°F) Ambient Cure | 85 at 100°C (212°F) Post Cure
Thermal Properties:	
Glass Transition Temperature (ISO 11357-2)	156°F at cure temperature 72°F | 216°F at cure temperature 212°F
Dry Heat Resistance (ISO 11357)	392°F
Chemical Properties (ASTM D4327 & ASTM E1479)	
Chloride Content	430
Sulphur Content	854
Heavy metals (Antimony, Arsenic, Bismuth, Cadmium, Lead, Tin, Silver, Mercury, Gallium, Indium)	< 3
Shelf Life	5 years at storage temperatures

Applications:

- Repair of cracks and holes on engine and pump casings, pipes, tanks and other equipment
- Resurface of pitted metal surfaces
- Repair of damaged shafts and hydraulic rams
- In-situ flange repair
- High strength structural adhesive for metal bonding
- Creation of irregular load bearing shims and reforming of bearing housings

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