

## TECHSIL<sup>®</sup> IS803 BLACK

TECHSIL<sup>®</sup> IS803 a ready-to-use adhesive sealant, which reacts with the atmospheric moisture to form a resilient rubber, which remains flexible over a very wide temperature range.

TECHSIL<sup>®</sup> IS803 liberates a very small amount of Acetic Acid during cure which gives rise to the familiar "vinegar" odour, which quickly dissipates after cure.

These high specification sealants are ideal for a myriad of engineering applications from production work to fast, effective maintenance and on-the-spot repairs. They are applied directly from the cartridge and cure at room temperature. Under typical ambient conditions they develop a tack free surface in approximately 15 minutes and cure within 24 hours.

### Key Features

- Good electrical insulation
- Resistance to chemicals and solvents
- Flexible from -60 to + 300°C
- Excellent bonding to a wide range of substrates

### Use and Cure Information

#### How to Use

TECHSIL<sup>®</sup> IS803 is ready for use. If supplied in cartridges it can be applied using either manual or pneumatic dispensers.

It can also be applied from bulk containers using conventional drum dispensing equipment.

#### Application and Cure

All surfaces to which TECHSIL<sup>®</sup> IS803 is to be applied should be clean, dry and free from grease, dirt and loose material.

Priming of surfaces is not normally required.

If it is being employed as an adhesive, it should be applied to one clean surface and the other clean surface brought into contact with it within 5 minutes.

The recommended thickness of the sealant joint is 1 to 2mm for optimum bond strength.

Joints should be left undisturbed for at least 24 hours, but preferably longer to effect sufficient depth of cure. Full cure requires 7 days.

For pneumatic dispensing of 310 ml cartridges, the recommended pressure is 2.25 to 3.45 bar (40 to 50 psi).

Dispensing pressure above the recommended limits may lead to gas bypassing the piston, causing spluttering at the nozzle and poor bead quality

### Physical Properties

Property	Test Method	Value
<b>Uncured Product</b>		
Colour:		Black
Appearance:		Black Paste
Tack Free Time:		4 minutes *
3mm Cure Through:		7 hours *
Extrusion Rate:		270 g / minute
Viscosity:		mPas

\* measured at 23+/-2°C and 65% relative humidity

### Contact Details

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<b>Cured Elastomer</b> (after 7 days cure at 23+/-2°C and 65% relative humidity)		
Tensile Strength:	BS903 Part A2	2.30MPa
Elongation at Break:	BS903 Part A2	290%
Youngs Modules:		0.7 MPa
Modulous at 100% Strain:	BS903 Part A2	0.94 MPa
Tear Strength:	BS903 Part A3	5.5 kN/m
Hardness:	ASTM D 2240-95	38 Shore A
Specific Gravity:	BS903 Part A1	1.07
Linear Shrinkage:		0.8%
Thermal Conductivity:		0.20 W/mK
Coefficient of Thermal Expansion:		
Volumetric		924 ppm / °C
Linear		308 ppm / °C
Min. Service Temperature:		-60°C
Max. Service Temperature:	AFS 1540B	300°C

<b>Electrical Properties</b>		
Volume Resistivity:	ASTM D-257	1E+16 $\Omega$ .cm
Surface Resistivity:	ASTM D-257	3.57E+15 $\Omega$ .cm
Dielectric Strength:	ASTM D-149	18 kV/mm
Dielectric Constant at 1MHz:	ASTM D-150	3
Dissipation Factor at 1MHz:	ASTM D-150	2.5E-3

### Adhesion Testing

Good un-primed adhesion to many substrates including glass stainless steel, aluminium and most plastics. Customers are advised to carry out their own tests on clean, degreased substrates to ensure satisfactory adhesion is achieved.

All values are typical and should not be accepted as a specification.

### Health and Safety

Material Safety Data sheets available upon request.

### Packages

310ml cartridges. Arrangements can be made to supply in bulk containers.

### Storage and Shelf Life

Expected to be 24 Months in original, unopened containers below 40°C.

### DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

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