

Opti-tec 5053-F-A

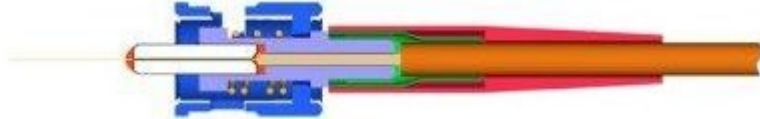


Opti-tec 5053-F-A High Temperature Fast Cure Epoxy Adhesive for Fibre Optic Terminating

Description

Opti-tec 5053-F-A is a two component, low viscosity, heat curing epoxy designed for high temperature applications. It is especially well suited to fibre optic terminating, where optical fibres are “pot and polished” into connectors or ferrules.

Opti-tec 5053-F-A is an improved and fast cure version of [Opti-tec 5053](#).



Features & Benefits

- High surface energy and low viscosity allows it to readily wet and wick between optical fibres. It develops strong adhesion to most materials used in fibre optics and optics, including metals, ceramics, glass and most plastics.
- High glass transition temperature results in excellent high temperature performance and creep resistance
- Resists moisture, vapours and most chemicals. It features low outgassing and low vapour pressure, making it an ideal sealing material for electronic and optical applications.

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Under normal cure, going from clear to deep translucent red.

- Specially formulated to have **very low skin sensitivity**
- Long pot life and good handling characteristics
- Used for Telcordia GR-326-CORE compliant assemblies (*General Requirements for Singlemode Optical Connectors and Jumper Assemblies* – formerly Bellcore), where its high T_g and environmental robustness allow the termination to meet the specification. Note: optimal cure schedule required.

Applications

- Fibre optic terminating
- Endoscope manufacture and repair
- Optoelectronics
- High temperature, high performance bonding
- Electronic sealing

Specifications

Typical Properties		
Mix ratio	8:1 resin to hardener	

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Typical Properties		
Mix viscosity	500-2,000 cps	
Surface tension	42-44 mN/m	
Pot life	4 hours @ 23°C (4g mixed)	
Cure schedule	Bondline temperature 85°C	Time 15 mins
	105°C	5 mins
	125°C	2 mins
	Note: Optimal cured properties are achieved by curing for 5 minutes at a bondline temperature of 120°C. Whilst lower cure temperatures are quoted, they are not recommended for best performance.	
Optimum cured properties (5 minutes @ 120°C)		
Refractive index	1.55	
Glass transition temperature (T _g)	>100°C	

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Typical Properties		
Density	1.15	
Hardness, Shore D	85	
Temperature range	-60 to 200°C	
Modulus	1 GPa	
CTE	55 ppm/°C Average between 0°C and 100°C	
Adhesive properties		
Lap shear (Al/Al)	11 MPa (@ 23°C)	
Shelf life	12 months in original sealed containers	

Other Information

Our [Technical Bulletins](#) page has links to:

Opti-tec 5053-F-A



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Optic Terminating [Click here for Sensitisation from Fibre Optic Epoxies](#)

Ordering Information

OPT 5053-F-A is available in twinpacks or in bulk.



The twinpack is a clear film sachet, with the resin and hardener separated by a removable clip and rail divider. [Click here for instructions on how to mix twinpacks.](#)

Standard twinpack size is 4g total weight. OPT 5053-F-A twinpack sachets are packaged in quantities of 5, sealed into a protective aluminium foil pouch.

Part number	Description
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Part Number	Description
OPT5053-F-A-4G	5 x 4g twinpack sachets
OPT5053-F-A-450G	450g kit
OPT5053-F-A-900G	900g kit

For optimal results, store away from acids, amines, strong alkalis and oxidising material. Static electricity and formation of sparks must be prevented. Keep only in the original container. Keep container tightly closed and upright, in a cool, well-ventilated place. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Next Steps

Find out more information on [how to purchase](#).

Our technical team are on hand to discuss your application requirements, [click here](#) to get in touch.

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Optic Terminating**



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