



A NEW FORCE IN CHEMICAL MANUFACTURING

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TECHNICAL DATA SHEET

SEPTEMBER 2014

PRODUCT NAME

8542 High Temperature Flange Gasket Sealant

PRODUCT RANGE

Part Number	Available Size
8542-50	50 ml
8542-250	250 ml



Refer to MSDS for product safety guidelines

8542 High Performance Thread Sealant

Chemtools® 8542 is a high performance anaerobic thread sealant designed for the locking and sealing of metal threaded pipes and fittings. The product cures rapidly in the absence of air between close fitting metal surfaces, and provides low-pressure resistance immediately after application.

This product is ideal for sealing against gases, water, LPG, hydrocarbons, oils, and other chemicals. Excellent thixotropic property prevents migration of the sealant before or during curing.

APPLICATIONS:

- Ideal for locking and sealing of threaded metal pipes and fittings
- Low viscosity with medium strength sealing properties.

ADHESIVE PROPERTIES:

Composition	Methacrylate Ester
Appearance	Brown
Viscosity @ 25°C (Brookfield RVT, Spindle 3 @ 20 rpm)	525 to 1,850 cps
Specific Gravity	1.06
Flash Point	> 100°C
Solvent Content	None

CURING PROPERTIES:

Handling Cure Time	10 - 30 minutes
Functional Cure Time	2 - 4 hours

Torque - ISO 10964

Breakaway	M10 steel nuts and bolts	15 Nm, 130 lb.in
Prevail	M10 steel nuts and bolts	9 Nm, 80 lb.in
Break Loose (Pre-torqued to 5 Nm)	M10 steel nuts and bolts	25 Nm, 220 lb.in
Max. Prevail (Pre-torqued to 5 Nm)	M10 steel nuts and bolts	25 Nm, 220 lb.in

Temperature Range	-55 to 150°C
Compressive Shear Strength - ISO 10123 (Steel Pins and Collars)	> 6.5 N/mm ² (940 psi)

PHYSICAL PROPERTIES:

Coefficient of Thermal Conductivity, ASTM C177, W/m.K	0.10
Coefficient of Thermal Expansion, ASTM D696, K ⁻¹	80 x 10 ⁻⁶
Specific Heat, kJ/kg.K	0.30

CHEMICAL RESISTANCE PROPERTIES:

Chemical	Temperature	% Initial Strength Retained	
		500 hours	1000 hours
Acetone	22°C	80	80
Ethanol	22°C	100	95
Motor Oil	125°C	100	100
Gasoline	22°C	100	95
Brake Fluid	22°C	100	95
Water/Glycol	87°C	90	90

APPLICATION INSTRUCTIONS:

Surfaces should be dry, clean, and free of any contamination. Apply 360° bead of product to the leading threads of the male fitting, leaving the first thread free. Force the material into the threads and voids, adjust product amount accordingly and apply a 360° bead of product on the female threads also. Assemble and tighten as required.

STORAGE:

Anaerobic adhesives shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 7°C to 28°C. Please do not return any unused material to its original container.

PRECAUTIONS:

This product is capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the material.

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