

**TECHNICAL
DATA SHEET**

GASKET G-435

anaerobic based gasketing sealant
medium strength
slow curing for adjustment
thixotropic flow for controlled dispensing

PRODUCT DESCRIPTION

FOTOPOLYMER GASKET G-435 is a single component anaerobic gasketing sealant that develops medium strength. **GASKET G-435** is thixotropic for controlled dispensing on threads. **GASKET G-435** cures when confined in the absence of air between close fitting metal surfaces. **GASKET G-435** is best suited for flexible and rigid flanges where disassembly is required.

KEY FEATURES

- Ensures positive seal within the flanges
- Strengthens assembly with adhesion to flanges.
- Flexes with flanges during pressure or thermal cycling & withstands vibrations.
- Prevents loosening of threaded assemblies
- Improves assembly accuracy with uniform clamping on direct metal to metal contact
- Seals surface imperfections to prevent corrosion
- Withstands most industrial solvents & chemicals
- Resilient at high temperature

TYPICAL APPLICATIONS

FOTOPOLYMER GASKET G-435 is primarily used for gasketing of flexible and rigid flanges where disassembly is required. **GASKET G-435** is suitable for gearbox housings, pipe flanges, oil pans, etc

TYPICAL PROPERTIES OF UNCURED MATERIAL

Base	Dimethacrylate
Appearance	Green viscous paste
Viscosity @ 25°C	19,000-60,000 Thixo
Specific gravity	1.25
Flash point, °C	>93

TYPICAL CURING PERFORMANCE

GASKET G-435 commences curing when confined in the absence of air between close fitting metal surfaces. The rate of cure depends on the activeness of substrate, the thickness of bondline and the ambient temperature. The rate of cure will increase with thinner bondline and higher ambient temperature. The rate of cure is higher on active metals. When cure rate is unacceptably long due to passive metals, large gaps or low ambient temperature, applying **START-UP** primer to the surface will improve rate of cure. However, this can reduce ultimate strength of the bond and testing is recommended for verification.

No primer

Maximum gap fill, mm	0.25
Handling speed @ 25°C, hours	6
Full cure @ 25°C, hours	48

With START-UP primer

Maximum gap fill, mm	0.51
Handling speed @ 25°C, hours	1
Full cure @ 25°C, hours	6

CURING SPEED BY SUBSTRATES

Substrates are divided into active metals and passive metals. Active metals provide higher catalytic effect which increases the curing speed of sealant. Passive metals decrease the curing speed of sealant and use of **START-UP** primer might be required.

Active substrates

Zinc phosphate
Steel
Iron
Copper
Brass
Bronze
Titanium
Magnesium alloys
Nickel
Manganese

Passive substrates

Zinc
Cadmium
Zinc dichromate
Stainless steel
Gold
Silver
Platinum
Anodized surfaces
Passivated surfaces
Pure magnesium
Aluminium

TYPICAL PROPERTIES OF CURED MATERIAL

PERFORMANCE PROPERTIES

Shear strength (Steel/Steel), N/mm ² (PSI)	1.30 (190)
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THERMAL PROPERTIES

Thermal conductivity, W/mK	0.1
Suggested temperature range, °C	-55 to 150

CHEMICAL RESISTANCE

Cured on steel lapshears, 48 hours @ 25°C
Aged at stated condition and tested @ 25°C

Chemical/Solvent	% of Initial Strength	
	500 hours	1,000 hours
Acetone @ 25°C	100	90
Gasoline @ 25°C	70	70
Ethanol @ 25°C	90	85
Brake fluid @ 25°C	95	95
Water/Glycol @ 85°C	100	100
Motor oil @ 125°C	100	100

HANDLING

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

When using water based cleaning solution, it is important to check for compatibility of the cleaning solution with product. Some cleaning solutions could affect the curing and performance of the product. This product is not recommended for use on plastics. Do not use as a spacer or for shimming.

Directions for assembly

- 1) For best performance, ensure bonding surfaces are clean and free from grease and dirt.
- 2) For manual dispensing, apply sealant in a continuous bead around the flange and circle around mounting holes.
- 3) For screen printing, apply consistent and uniform pressure. Check and repair any breaks in printing. Screen printing is best suited for high volume production, complex flange design, small parts and consistent dispensing.
- 4) Assemble immediately after dispensing to avoid shimming. Low pressure may be applied to check for sealing.
- 5) Allow sufficient time for parts to cure before further handling, processing or testing. Excess sealant outside joint would remain as liquid.

Directions for disassembly

- 1) Loosen with regular hand tools and at high torque.
- 2) To help disassembly, apply localised heat of more than 250°C on cured sealant and loosen at high torque while parts are still hot. Use extreme caution when working with hot parts and heat sources such as heat gun, flames, etc.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

STORAGE

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C unless otherwise labelled. Optimal storage is at the lower half of this temperature range. To prevent contamination of sealant, do not return used sealant to its original container.

CAUTION

- 1) Minimize skin contact. Uncured resin may irritate sensitive skin. In case of skin contact, flush with water for at least 15 minutes.
- 2) In case of eye contact, flush with water for at least 15 minutes and seek medical attention.

FOR INDUSTRIAL USE ONLY. KEEP AWAY FROM CHILDREN.

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