KR416

Retaining Compound / Bearing Mount

Description

KR416 is a single component, low-medium viscosity, medium strength, non-permanent, anaerobic retaining compound for the bonding of close fitting cylindrical parts.

The advanced medium strength formulation of KR416, will allow assemblies to be easily dismantled for servicing and component re-use.

KR416 cures rapidly when confined in the absence of air on close-fitting metal surfaces.

KR416 prevents corrosion of assembled parts.

Typical Applications

KR416 is designed to augment the strength of cylindrical assemblies. After application to the assembly, parts slip together easily, lubricated by the adhesive.

Typical applications include: mounting bearings in-place on shafts and in housings.

Technical Features

Chemical type:	Dimethacrylate
Appearance:	Yellow / Brown
State:	Liquid
Specific Gravity:	~1.07
Viscosity [1]:	400 - 800 cPs
Breakaway Torque [2]:	12 - 18 Nm
Prevail Torque [2]:	8 - 12 Nm
Shear Strength [3]:	7 - 15 N/mm^2
Initial Fixture Time [4]:	≤15 minutes
Max. Gap Fill:	0.20 mm
Full Cure:	24 hours
Flash Point:	> 100 °C
Shelf Life:	12 months @ 20 °C
Operating Temp. Range:	-50 to +150 °C

1 *Brookfield LVF, spindle 2, Speed 2.5rpm*

2 *On M10 black oxide steel bolt and M10 bright steel nut, ISO10964*

3 *On steel pin and collar, ISO10123, 24hrs*

4 *ISO 10964*

Typical Curing Performance

Typical curing speed [4] as % of final strength.

Time	Value %
30 minutes:	~10
1 hour:	~50
24 hours (Full cure):	100

Factors Affecting Cure Speed

Cure speed can be negatively influenced by very large gaps, low temperatures and can be dependent on the substrates being bonded.

Heating the assembled parts accelerates the curing process.

When used on mild steel and brass components, anaerobic adhesives will reach full strength more rapidly than more inert materials such as stainless steel and zinc dichromate.

Anaerobic adhesives only cure in the absence of air and with metal part activation.

Anaerobic activator KP6497 should be used on plated parts or when the temperature is less than 5°C. The use of an activator can reduce bond strength.

Some anti corrosion chemicals inhibit the cure system in this type of anaerobic. Trials are recommended to establish whether cleaning of the parts is necessary.

All figures relating to cure speed are tested at 21°C.

Chemence recommends testing the suitability of Krylex products for any specific application.

Typical Environmental Resistance

Hot strength: KR416 is suitable for use at temperatures up to 150°C. At 130°C the bond strength will be ~30% of the strength at 21°C.

Heat ageing: KR416 retains over 80% full strength when heated to 100°C for 90 days then cooled and tested at 21°C.

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Chemical / Solvent Resistance

KR416 has good environmental resistance to water and other organic solvents including motor oil, ethanol and glycols.

KR416 is not recommended for use in pure Oxygen or Chlorine lines.

Limitations

KR416 is not recommended on certain plastics as stress cracking can sometimes result.

Instructions For Use

KR416 is suitable for medium strength retaining applications that require small to medium gap filling and subsequent dismantling.

For best results, ensure parts are clean, dry and free from oil and grease.

KR416 adhesive should be applied manually to both surfaces.

Assemble parts use a rotating motion during assembly to ensure good coverage and allow to cure.

Wipe excess adhesive from outside of joint.

Product is normally hand applied from the bottle.

KR416 is suitable for use in dispensing systems for high volume assembly applications.

Storage

Optimal storage conditions are between 8°C and 21°C. Storage outside this temperature range can adversely affect product properties and may reduce the stated shelf life.

Please Note: When packed, KR416 requires an air space above the product to maintain stability.

Important: Bulk stock (≥5kg) must be repacked into suitable containers within 3 months from date of shipment.

General Information

For safe handling of this product consult the Safety Data Sheet.

Adhesive outside the joint will remain uncured and may be wiped away with a cloth.

Presentation

Bottles: ..... 50ml and 250ml.

Available in bulk for use with dispensing systems.

Notes

The data contained in this data sheet may be reported as typical value and / or range. Values are based on actual test data and are verified on a regular basis.

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