

Technical Data Sheet

KS655

Pipe Sealing Paste

Description

KS655 is a single component, high lubricity, low strength, very high viscosity, thixotropic, anaerobic sealing paste, formulated to cure rapidly when confined in the absence of air on close-fitting metal surfaces.

KS655 will give low strength break and prevail torque on assembled joints, thus enabling easier disassembly for servicing, aided by the high lubricity of the product.

KS655 gives an almost instant low-pressure seal (up to 2 Bar after 20 mins.) to allow on-line pressure testing and when fully cured will seal up to the bursting pressure of the pipe (e.g. 700 Bar).

Typical Applications

KS655 is designed for locking and sealing medium to coarse straight and tapered pipe threads, on pipes and fittings of diameters from 15mm to 80mm. KS655 prevents vibration loosening and leakage through the pipe threads.

Technical Features

Chemical type:	Dimethacrylate
Appearance:	White
State:	Thixotropic Paste
Specific Gravity:	~1.17
Viscosity ¹ :	150,000 - 450,000 cPs
Viscosity ² :	30,000 - 130,000 cPs
Breakaway Torque ³ :	2 - 8 Nm
Prevail Torque ³ :	0.5 - 4 Nm
Initial Fixture Time ⁴ :	≤120 minutes
Max. Gap Fill:	0.50 mm
Full Cure:	24 hours
Flash Point:	> 100 °C
Shelf Life:	12 months @ 20 °C
Operating Temp. Range:	-50 to +150 °C

¹ Brookfield RVT, 'T' spindle D, Speed 2.5 rpm

² Brookfield RVT, 'T' spindle D, Speed 20 rpm

³ On M10 black oxide steel bolt and M10 bright steel nut, ISO 10964

⁴ On mild steel M10 nut and bolt, ISO 10964, at 22°C

Typical Curing Performance

Typical curing speed ⁴ as % of final strength.

Time	Value %
≤120 Minutes (Fixture time):	Finger Tight
6 hours:	~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.

Bond gap varies with thread type, pitch and size of the fitting. The larger the gap between threads, the slower the cure speed.

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.

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

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

Chemical / Solvent Resistance

KS655 has good environmental resistance to water and other organic solvents including motor oil, ethanol and glycols.

KS655 is not recommended for use in pure Oxygen or Chlorine lines.



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Typical Environmental Resistance

Hot strength: KS655 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: KS655 retains ~85% full strength when heated to 100°C for 90 days then cooled and tested at 21°C.

Instructions For Use

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

Apply KS655 to all engaged threads, although to minimise excess adhesive inside the joint, apply adhesive only to the male part, leaving the first two threads clear.

Assemble parts and allow to cure.

Wipe excess adhesive from outside of joint.

Product is normally hand applied from the bottle.

KS655 will not cure outside the joint and is virtually non-fouling in most types of pipe systems.

KS655 is suitable for use in high volume dispensing systems.

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, KS655 requires an air space above the product to maintain stability.

Important: Product packed in bulk (>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.

Anaerobic adhesives are not recommended on certain plastics as stress cracking can sometimes result.

Presentation

Tottles: 50ml and 250ml.

Cartridges: 270ml

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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