

Technical Data Sheet

KA303

Two Component No-Mix Acrylic Adhesive

Description

KA303 is a two component, toughened acrylic adhesive system, which must be cured with Krylex KP0757 liquid activator.

KA303 does not require mixing prior to use and rapidly cures at room temperature to give a tough, impact resistant bond with good peel strength.

Typical Applications

KA303 will bond a wide variety of substrates, including metals, woods, ferrites, ceramics, glass, many plastics, stone, etc. KA303 is particularly good for bonding dissimilar materials.

Typical applications include sporting goods, appliance assembly, furniture assembly, bonding handles in place, etc.

Technical Features

Chemical type:	Methacrylate esters and high mol. wt. elastomers
Appearance:	Pale Cream
State:	Paste
Specific Gravity:	1.03
Viscosity ¹ :	17,500 - 26,000 cPs
Tensile Shear Strength ² :	15 - 22 N/mm ²
Tensile Strength ³ :	13 - 20 N/mm ²
Initial Fixture Time ⁴ :	90 seconds
Max. Gap Fill:	1mm
Full Cure:	24 hours
Flash Point:	> 100 °C
Shelf Life:	12 months @ 20 °C
Temp Range	Continuous: -50 to +120 °C Intermittent: -50 to +150 °C

¹ Brookfield RVT, spindle 4, 2.5rpm, @ 25 °C

² ASTM D1002, on steel, cured with KP0757

³ Grit blasted mild steel to glass, ASTM D2095-69 after 24 hours

⁴ To achieve 1 N/mm² in ASTM D1002, on steel, cured with KP0757

Typical Curing Performance

Tensile shear strength on steel, cured with KP0757, tested to ASTM D1002.

Time	Value
90 seconds (Fixture time):	1 N/mm ²
5 minutes (Handling time):	~4 N/mm ² *
24 hours (Full cure):	15 - 22 N/mm ² *
* Depending on substrates	

Cure performance is as indicated in the table above. Cure speed will be reduced if cured at low temperatures.

Factors Affecting Cure Speed

KA303 cures faster when one of the substrates to be bonded is a metal, due to the anaerobic nature of the product.

All figures relating to cure speed are tested at 20°C. Lower temperatures will result in slower cure. Heating the assembled parts accelerates the curing process.

Typical Environmental Resistance

Hot strength: KA303 is suitable for use at temperatures up to 120°C. At 120°C the bond strength will be approximately 10% of the strength at 21°C.

Heat ageing: KA303 retains over 95% full strength when heated to 100°C for 90 days then cooled and tested at 21°C.

Chemical / Solvent Resistance

KA303 has good environmental resistance to water and other organic solvents including motor oil, ethanol, glycols. KA303 is not recommended for use in pure Oxygen or Chlorine lines.

Instructions For Use

For best results, ensure parts are clean, dry and free



CHEMENCE®

Technical Data Sheet

KA303

Two Component No-Mix Acrylic Adhesive

from oil and grease, although good bonds can still be achieved on 'as received' or slightly oily parts.

KA303 adhesive should be applied to the most absorbent surface in beads or spread as a thin layer using a flat edge.

KP0757 activator should then be brushed onto the least porous substrate and allowed to evaporate for at least one minute.

The two parts should then be brought together and clamped or held in position to achieve best results.

Adhesive fillets of KA303 squeezed outside the joint will remain slightly soft.

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, KA303 requires an air space above the product to maintain stability.

Important: Product packed in bulk (>5kg) has a shelf life of 6 months. The material must be filled into smaller bottles / tubes within this time period.

General Information

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

It is recommended that testing is carried out on plastics prior to bonding, as uncured KA303 may induce stress cracking in some circumstances.

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

Presentation

80ml + 20ml kit
(80ml KA303 cartridge + 20ml brush top bottle of KP0757).

315ml cartridges KA303.

5kg and 25kg of KA303 in bulk containers, for use with high volume dispensing systems.

KP0757 activator is available separately in 20ml and 1Ltr containers.

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.

Disclaimer

Information presented herein has been compiled from sources considered to be accurate and reliable, but is not guaranteed to be so. Nothing herein shall be considered as recommending practices or products in violation of any patent, law or regulation. It is the user's responsibility to determine the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary.

WE MAKE NO WARRANTIES REGARDING THE PRODUCTS AND DISCLAIM ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

