



Thermal Stability Acrylic Adhesive Applied on PP, PE, TPO Inert Plastics

Product Description

KA006-3 is two-component acrylic adhesive that cures at 14~34 °C. No special surface treatment is required. Cured product exhibits excellent adhesion strength to various low surface energy materials, such as polypropylene (PP), polyethylene (PE), and thermoplastic polyolefin (TPO). In a long-term of high temperature environment (80°C high temperature for 14 days), the adhesion strength did not significantly decline. It can replace screws, rivets, plastic welding and two-step processes, including chemical etchants, primers or surface treatments in various applications.

Features

1. Mixed product exhibits outstanding operability.
2. This product exhibits adhesion on different substrates.
3. This product exhibits excellent high temperature resistance, chemical resistance and water resistance.
4. This product can professionally solve the structural adhesion of thermoplastic polyolefin elastomer (TPO).
5. No surface treatment is required for difficult bonding substrates.
6. This product is solvent-free formula with low odor that fully complies to the environmental protection requirements.
7. This product exhibits excellent thermal stability.
8. This product complies to the 2011/65/EU RoHS regulations.
9. This product complies to chlorine < 900ppm, bromine < 900ppm, chlorine + bromine < 1500ppm.

Typical Uncured Properties

	KA006-3A	KA006-3B
Appearance	Liquid	Liquid
Color	Blue green	Light yellow
Viscosity 25°C, cps	26,000~32,000	50,000~75,000
	S14 10rpm	S14 10rpm
Thixotropic Index	≥ 3.5	≥ 3.5
Specific Gravity	1.08~1.17	1.02~1.12

Typical Curing Properties

Mix Ratio (A : B) by Weight	9.2 : 1
Mix Ratio (A : B) by Volume	10 : 1
Pot Life, 25~33°C, 0.5g, min	8~10
Initial Cure Time, 25~33°C, hr	1.5~2
Through Cure Time, 25~33°C, hr	18~24

Direction of Use

1. When using this product, discard the front end of the A part and B part mixed adhesive, then coating the product (A part and B part mixed adhesive) on the substrate to achieve the best bonding performance.
2. It should be applied on a clean surface which is free of dirt, grease or mold release. In many cases, a simple solvent wipe is sufficient.
3. Mix thoroughly by weight 9.2 : 1 before use.

4. After mixing, it should be used within the pot life.
5. For maximum bonding strength apply adhesive evenly to both surfaces to be jointed.
6. The handling information of this product supplied in dual syringe cartridge can be obtained by requesting a copy of "Introduction for Adhesive Cartridge Dispenser" (F-06122201).

Typical Cured Properties*

Glass Transition Temp., (MDSC), °C	90
Specific Gravity	1.12
Durometer Hardness, Shore D	60
Shear Strength, PP+PP, kgf/cm ²	45
Shear Strength, PP+PP, 80°C*336hr, kgf/cm ²	46
Shear Strength, PA+PA, kgf/cm ²	40
Shear Strength, HDPE+HDPE, kgf/cm ²	58
Shear Strength, HDPE+HDPE, 70°C *168hr, kgf/cm ²	52
Shear Strength, HDPE+HDPE, 70°C Water*168hr, kgf/cm ²	50
Shear Strength, HDPE+HDPE, 5% Brine*168hr, kgf/cm ²	60
Shear Strength, HDPE+HDPE, 70°C*5% Brine*168hr, kgf/cm ²	60
Shear Strength, HDPE+HDPE, 10% Sodium hydroxide*168hr, kgf/cm ²	62
Shear Strength, HDPE+HDPE, Gasoline*168hr, kgf/cm ²	19
Shear Strength, HDPE+HDPE, Diesel fuel*168hr, kgf/cm ²	60
Shear Strength, HDPE+HDPE, Toluene *168hr, kgf/cm ²	< 10
Shear Strength, HDPE+HDPE, Acetone *168hr, kgf/cm ²	< 10
Low Temperature Shear Strength, HDPE+HDPE, -30°C, kgf/cm ²	45
Room Temperature Shear Strength HDPE+HDPE, 25°C, kgf/cm ²	45
High Temperature Shear Strength HDPE+HDPE, 50°C, kgf/cm ²	45
High Temperature Shear Strength HDPE+HDPE, 80°C, kgf/cm ²	45
Shear Strength, PE+PE, kgf/cm ²	40
Shear Strength, UHMWPE+ UHMWPE, kgf/cm ²	34
Shear Strength, LDPE+LDPE, kgf/cm ²	25
Shear Strength, ABS+ABS, kgf/cm ²	120
Shear Strength, PC+PC, kgf/cm ²	120
Shear Strength, PMMA+PMMA, kgf/cm ²	100
Shear Strength, PVC+PVC, kgf/cm ²	140
Shear Strength, FRP+FRP, kgf/cm ²	150
Shear Strength, PTFE+PTFE, kgf/cm ²	< 20
Shear Strength, PS+PS, kgf/cm ²	45
Shear Strength, Glass+Glass, kgf/cm ²	60
Shear Strength, TPO+TPO, kgf/cm ²	45

Storage and Shelf Life

This product should be stored in cool and dark place. This product should be kept without any possibility of sunlight or ultraviolet exposure. Replace the lid immediately after use. After opened, keep the bottle mouth clean and keep without any possibility of acid-base substance exposure. Shelf life of this product is 1 year when stored at 2~13°C in the original and unopened containers.

Caution

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. It is important to remove adhesive from skin with soap and water thoroughly. DO NOT use solvents for cleaning hands. This product is of moderate acute toxicity by swallowing. If swallowed, call a physician. Avoid contact with eyes. In case of contact, flush with water for at least 15 minutes and get medical attention immediately. For specific information on this product, consult the Safety Data Sheet.

The data contained in this bulletin is provided only as a guide for evaluation/consideration. These material characteristics are typical properties that are based on a limited number of samples tested in the laboratory. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any product or method. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.