



Photo-curing Adhesive for Plastic and Metal Bonding

Product Description

GM299-32 is photo-curing adhesive for plastic and metal bonding, such as iron, aluminum, stainless steel and alloy. This product is able cure rapidly under the UV light and exhibit excellent adhesion strength for plastics and metals.

Features

1. This resin has good toughness, shock resistance, and thermal shock resistance after curing under the UV light.
2. This product exhibits good adhesion strength for plastics and metals.
3. This product complies to the 2011/ 65/EU RoHS regulations.

Typical Uncured Properties

Appearance	GM299-32
Color	Liquid
Viscosity 25°C, S14 50rpm, cps	Colorless
Refractive Index n_D	4,800~7,200
Solvent Content, %	1.4726
Heavy Metal Content, %	0

Typical Curing Properties

Recommended Wavelength, nm	310~365
Minimum Light Intensity, mW/cm ²	> 50
Minimum Light Energy, mJ/cm ²	1,500~3,000

Direction of Use

1. Clean the contact surface until it is free of dirt, grease or mold release. Generally, a simple solvent wipe is sufficient.
2. For maximum bonding strength, apply the adhesive evenly onto both surfaces that wish to be jointed.
3. Real curing time depends on various factors, such as part geometry, materials to be bonded, bondline thickness and efficiency of the UV light. Confirm the real curing time and conditions with actual production parts and equipment.
4. This product may cause skin irritation to sensitive personnel.

Typical Cured Properties

Durometer Hardness, Shore D	53
Water Absorption Ratio (25°C /24hr), %	3.56
Working Temperature Range, °C	-40~100

Mechanical Test



Specimen Material: Stainless Steel (304)/PMMA
Specification : 50mm×25mm×2mm / 38.1mm×25mm×2mm
Test area is <1 cm²

Item	Specimen cm ²	Maximum Strength, kgf	Bonding Strength kgf/cm ²	Description of Material Failure
GM299-32	0.75	71.78	95.71	Cohesive Failure
GM299-32	0.75	73.49	97.98	Cohesive Failure
GM299-32	0.75	71.74	95.66	Cohesive Failure
GM299-32	0.75	71.89	95.85	Cohesive Failure
Average Value	0.75	72.22	96.30	

Storage and Shelf Life

This product should avoid any direct light exposure. Replace the lid immediately after use to prevent possible light exposure. Shelf life of this product is eight months when stored under shades, room temperature (14~34°C), and in sealed 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 Material Safety Data Sheet.