



Screen-Printable Adhesive

SP-6010

Technical Data

July - 2002

Product Description SP-6010 Screen-Printable Adhesive is a water-dispersed, pressure sensitive adhesive which has been formulated to be screen printable. This product exhibits a good combination of peel, shear and environmental aging properties.

Features/ Advantages

Features

Advantages

- | | |
|-------------------------------------|----------------------------------|
| * Screen printable | * Low waste |
| * High solids | * High coverage |
| * Print complicated patterns | * More versatile product designs |
| * water-dispersed | * Non-flammable in the wet state |
| * High heat resistance | * High product quality |
| * Compatible with metal and plastic | * Broad range of applications |

Application Ideas

- | | | |
|---------------------------|------------------------|-------------------|
| * Membrane Switch Keypads | * Graphics Application | * Touch Panels |
| * Cell Phones | * Pagers | * Audio Equipment |
| * Car Interior Trim | * Home Appliances | * Foam Padding |

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Solids:	64%
Color:	Milky White
Carrier:	Water
Specific Gravity:	1.04
Viscosity:	30,000 - 35,000 CPS
Ph:	7.0

Application Suggestions: Use directly without dilution. Agitate well before using. Do not add additives such as defoamers. Keep container tightly capped during storage. Avoid returning used adhesive to container. Select screen mesh based on required adhesive coating thickness and printing precision. Stainless steel, polyester and nylon wire in the range of #100 to #150 can be used for screen mesh materials. Water resistant materials such as acrylics or diazos should be used for mesh masking materials.

Screen-Printable Adhesive

SP-6010

Typical Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Peel Force: 180 degree peel test; 4 mil (100 micron), PET film; conditioned 120°F (50°C)/ 24 hrs; 1.0mil (25micron) adhesive thickness.

Substrate	lb/in	kgf/25 mm
Stainless Steel:	4.8	2.2
LDPE	2.9	1.3
HIPS	5.1	2.3
Polyvinyl Chloride	5.1	2.3

Environmental Resistance: 180 degree peel test; PET 4 mil (100 microns) / ABS; 1.0 mil (25 micron) adhesive thickness.

Condition	lb/in	kgf/25 mm
Initial 75°F (25°C)	2.9	1.3
175° (80°C)/ 1000 hrs	5.5	2.5
140°F (60°C)/ 95% Rh./1000 hrs	3.3	1.5

Heat Resistance: PET 4 mil (100 micron)/ Stainless Steel; 1.6 mil (40 micron) adhesive thickness.

Temperature	lb/in	kgm/25 mm
176°F (80°C)	2.8	1.3

Dead Load Test

Load	Temperature
2.2 lb (1 kgf)	170°F (77°C)
1.1 lb (0.5 kgf)	>266°F (130°C)

Storage and Shelf Life

Store in original container. Temperature not to exceed 105°F (40°C). Keep from freezing. Once frozen, it will not be usable.

Shelf life is 12 months from date of shipment when stored in original container and temperature is kept between 40-95°F (5-35°C).

Some liquid separation from the adhesive during storage is normal. This liquid should be remixed into the adhesive by low-shear, mechanical agitation. Mixing by hand is adequate from small volumes of adhesives.

Important Notice:

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

Engineered Adhesives Division

**3M India Limited
Raheja Paramount
138, Residency Road,
Bangalore - 560 025.
Tel. No.:080-67595759.**