

easyTAC Series 140-15000 Pressure sensitive adhesive

This printable adhesive is a self-cross linking, solvent based pressure sensitive system for technical application to fulfil the demands of industrial applications.

Series 140-15000 is economical, technically strong and provide an excellent physical bond to many substrates in a wide variety of strengths for use in automotive and appliance nameplates, membrane switches, decals, and many other applications.

Description

SERIES 140-15000 is a high quality pressure sensitive adhesive used for the production of self adhering materials made of paper and cardboard, rigid PVC, polycarbonate, polyester (coated), polyethylene and polypropylene (both pre-treated, surface tension > 38 mN/m), glass, metal and industrial foams to self adhering items.

Materials bonded with SERIES 140-15000 are very difficult to remove or even permanent depending on kind of the substrate.

In general, the adhesive film is sufficiently light fast; however, if placement in direct sunlight is expected, testing is essential.

Bonded materials are resistant to water, diluted watery acids and alkaline solutions, as well as to many mineral oils.

Materials coated with SERIES 140-15000 can be stored for a minimum of 1 year without any decrease of adhesive strength, if covered with a suitable silicon release paper and kept dry and dark at room temperature.

Application

Main application is screen printing process. Also possible are roll and brush coating; for this a reduction of viscosity with Series 10-02432 is necessary. When screen printing use a medium shore squeegee (65 to 70 Shore).

The optimal printing temperature is around 20°C / 70°F; though, it's suitable for application at higher room temperatures such as: 20 – 28°C or 68 – 82°F.

Mesh range: 18 - 43 threads/cm or 46 - 110 threads/inch. As coarser the mesh size, as higher the adhesive strength. So this is in relation to the film thickness (adhesive layer).

Adhesive coverage is approx. 60 g/m² if applied to closed surfaces s 36-100 Y PW mesh, depending on application conditions.

As this glue is free of high aggressive solvents and water, the most common emulsions and films can be used. Preliminary tests are necessary by using indirect stencil materials.

SERIES 140-15000 can be dried at room temperature or using conventional tunnel dryers for industrial production. The adhesive must be completely dry and transparent before a release liner is applied or further processing undertaken.

SERIES 140-15000 can be die-cut.

Back-lit windows should not be covered with adhesive as this will change the light intensity.

Additional information

The suitability of the adhesive together with each component i.e. substrate, ink, liner, adhesion partner etc. must be tested before production parts are made. Special attention should be paid to long term compatibility with component materials. Also one must check the influences of the line

material and the state or nature of the substrate's structure or roughness. Silicone release agents, plasticizer migration etc. must be checked for and ruled out before one continues.

Technical information

The following data's based on screen printed adhesive on 50µ polyester film. Peel strength & tack values resulting from smooth adhesive layers.

Screen mesh	21-140	36-90	43-80
Drying/20°C	90 min	60 min	60 min
Drying/70°C	180 sec	120 sec	120 sec
Thickness (1)	28 µm	12 µm	9 µm
Tack value (2)	1200 g	800 g	600 g
Strength/15 min*	11.0 N/cm	7.5 N/cm	6.0 N/cm
Strength/72 h*	12 N/cm	8.5 N/cm	7.0 N/cm

(1) Difference measurement per DIN 50981, with PERMASCOPE M 11 thickness gage

(2) 90µ wet film thickness. Measured with Polyken Tack Tester, 1 sec. adhering, pull-off speed: 1 cm/sec. Measured with specimen holder "A" at room temperature.

(*) Peel strength per PSTC-1; measured in N/cm. Peel angle 180°, measured 15 min. and 72 hrs. after adhering. Measured on a Lloyd type L 500 by Lloyd Instruments, load cell 100 N [or 22.7 Lbs] / Class 1, DIN 51221 for tension & pressure. Peel speed: 300mm/min. Bonded to polished stainless steel (material 1.4301) with hand roller as per PSTC-Standard: roller weight 10 lbs, 5 times each direction.

Bonding area: 2.5 x 10 cm or 1 x 4 inches.

Precautionary measures

Read material safety data sheet prior to processing.

The material safety data sheets according to OSHA form contain indication of hazardous ingredients, TLV-level and instructions for precautions when processing, handling and storing as well as first aid. The information given in the MSDS refers to processing as described in this technical leaflet. The statements in our leaflets have been made to the best of our knowledge and are given without any obligation. They serve to advise our business associates, **but it is absolutely necessary** to make your own printing tests under local conditions, with regard to the intended purpose prior to starting the printing job. In case of any doubts please contact our technical advisors. The application, use and processing of the products delivered by us are beyond our control. This is subject to your responsibility and there is no liability or guarantee on our part. In case of justified complaints the manufacturer can only be made liable for the counter value of the used ink system.

Addition of not mentioned products or competitors products are on your own risk and releases Printcolor Screen Ltd. of any later demands, especially in cases of damage and loss caused by alien products.

All former leaflets are no longer valid.

01/2007