

# Suprasec 7113 (Cat Z)<sup>®</sup>

## Laminating Adhesive

Revision Number: 0

### PRODUCT DESCRIPTION

**Suprasec 7113 (Cat Z)** is a sprayable, solvent borne, flexible polyurethane adhesive suitable for bonding a wide range of substrates including polystyrene foam, timber, plastic and various metallic and Colorbond<sup>®</sup> surfaces. It has been designed for bonding polystyrene foam to a wide variety of flexible and rigid facing materials in the manufacture of insulation and structural sandwich panels.

The adhesive system is moisture cured and hence the cure rate is related to the prevailing relative humidity and temperature of the substrates and the atmosphere. **Suprasec 7113 (Cat Z)** is supplied as pre-catalysed to a moderate level suitable for warm climatic conditions. It can be further activated by addition of further **Daltobond CAT1** if required to levels of no greater than .2% w/w. Maximum flexibility of operation is retained if the catalyst is supplied separately as the cure/open time can be adjusted to the required level of selecting the appropriate catalyst additions. Cure time can be reduced significantly by use of a hot press. **Suprasec 7113 (Cat Z)** cures to a tough flexible film and hence can be used for flexible film and rigid substrates. It has been specifically designed to allow some initial slip after lamination to aid in the ready alignment of assemblies.

### TYPICAL LIQUID PROPERTIES

Appearance:	Clear amber liquid
Solids:	75%
Viscosity:	<300 mPa s
Specific Gravity:	1.17
Boiling Point:	40°C (solvent)
Solvent:	Predominantly methylene chloride
Flammability:	Non-flammable

### APPLICATION INSTRUCTIONS

The adhesive is designed for spray application at a rate of 100 - 200 gsm to one surface of the glue line. Airless spray with a pump of ratio of 30:1 and a fluid pressure of 8 - 17 MPa (1200 - 2500 psi) is recommended. An air assisted spray gun can also be advantageous. Spray tips which give a wide spray area and of relative large diameter (0.017" - 0.025") are recommended. The adhesive is particularly suitable for high speed lamination as the methylene chloride based solvent system ensures

solvent retention is minimised. Where very rapid assembly is required, the coated panels should be passed under infra-red or hot air heaters prior to assembly. It is generally recommended that panels can be assembled within 30 minutes although under normal temperatures and humidity good adhesion can be obtained after at least 45 minutes open time. Pressing of the assemblies is recommended to ensure intimate contact. Low pressures (28 - 70 kPa ie. 4 - 10 psi) are generally all that is required. Cure can be greatly accelerated by a hot press where excellent bonds can be achieved within

12 minutes at 50°C compared with 1 - 1.5 hours at ambient temperatures. More detailed application information is available on request.

### Coverage

**Suprasec 7113 (Cat Z)** is designed for use at an application rate of 100 - 200 gsm, to one surface of the lamination. Coverage rates will vary depending on the porosity and texture of the surfaces to be bonded.

### Clean-up

Moisture can permeate into spray equipment in time, particularly when the equipment is not being used. This may cause the adhesive to gel and subsequent line blockage. It is recommended that the equipment be thoroughly cleaned whenever the line is to be shut for a period of time. Providing moisture impervious lines such as Teflon are utilised the adhesive can be left in the sealed system for longer periods of time. The lines should be flushed with a suitable solvent such as methylene chloride, leaving the spraying system full of solvent.

### PACKAGING

**Suprasec 7113 (Cat Z)** is supplied in 240 kg drums.

### Storage

Store in a cool, dry place. Under normal conditions (20 - 25°C) a shelf life of 12 months is expected in unopened containers.

Partially used containers should be purged with dry nitrogen to prolong storage stability as the material will skin in 2 - 3 hours if left in contact with humid air. If contact with moisture or water occurs, the drums should not be resealed. Reaction with water leads to gas evolution, with possible pressure build-up. Preferably part-used containers should be purged with dry nitrogen

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for maximum storage stability. In properly sealed full containers a shelf-life of at least six months can be achieved at normal catalyst levels.

#### HEALTH AND SAFETY ADVICE

Refer to Huntsman Safety Data Sheets for individual products. **Suprasec 7113 (Cat Z)** is safe if safe working practices and proper application equipment is used. The material must be handled in a properly constructed efficient spray booth. Water wash booths are recommended to ensure isocyanate aerosols are trapped and deactivated. Whilst the adhesive is classified as non-flammable, naked flames and smoking should not be permitted in the working area. Good industrial hygiene should be observed at all times - impervious gloves should be worn when handling the adhesive. This product contains only diphenylmethane diisocyanate derived

polymers. Further information on handling isocyanate products is available on request. Also refer to Technical Information

PU193-1E "*MDI-Based Compositions : Hazards and Safe Handling Procedures*".

Note: Do not use through application equipment made of aluminium. **Daltobond IG 090010 (Cat Z)** contains chlorinated solvents. Experience has shown that under certain conditions reaction between the solvents and aluminium components may occur. With the high pressures used in this type of equipment the results can be devastating. All components in contact with the adhesive should be made of stainless steel. Graco and Binks can supply suitable pump units.

Huntsman Polyurethanes Australia Pty Ltd A.C.N. 090 446 165  
Main Office: Ballarat Rd Deer Park Vic 3023 Phone (03) 9361 6000 Fax (03) 9361 6066  
**Emergency contact number : 1800 033 111**

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#### Important Notice

Huntsman Polyurethanes products should be used in accordance with the information contained here. Each user should read and consider this information carefully in the context of how the products will be handled and used in the workplace including in conjunction with other products. While the information contained here is Huntsman Polyurethanes' best knowledge at the date of publication, Huntsman Polyurethanes makes no representation about the accuracy of the information. If you need clarification or more information, you should contact Huntsman Polyurethanes' office directly. Huntsman Polyurethanes products are sold without express or implied warranties, other than as provided by statute, and subject to our standard terms and conditions (provided to customers and available on request). Subject to our standard terms and conditions, and any statutory provisions, Huntsman Polyurethanes accepts no responsibility (including in negligence) for loss or damage of any nature resulting from the use of Huntsman Polyurethanes' products or reliance upon the information contained here.

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