



Technical Data Sheet

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Preferre 4157 and Preferre 5310 for Paper Foil Bonding

Use

The above system can be used on both Hymmen and Grecon thermo-laminating roll presses, using separate application of liquid urea resins and liquid hardeners as the adhesive system. It is immaterial whether the resin is applied first followed by the hardener or the hardener followed by the resin.

In either case, the first component is applied to the substrate, usually chipboard or medium density fibreboard, and partially dried by passing under heaters prior to the second component being applied. The paper foil is then continuously fed onto the substrate. The laminated product is then passed through a heated roll press to cure the adhesive almost instantly. This type of system gives extremely fast production rates, using foils down to 23g/m² and achieves excellent surface quality when compared to conventional laminating processes.

Advantages of the TS Resins System

- Quality of adhesion
- Speed of cure
- Low spread rate
- Good washdown properties
- Low emissions
- Cleanliness of the spreader rollers
- Excellent shelf-life



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Technical data

	Prefere 4157	Prefere 5310
Appearance	Semi-opaque liquid	Clear, colourless to amber & liquid
Viscosity at 25°C (mPas)	1500 – 1900	35 – 65
SG at 25°C (g/cm³)	1.27 – 1.32	1.115 – 1.135
pH	8.3 – 8.6	-
Solids Content (%)	67.0 – 70.0	-
Shelf Life at 20°C	~ 6 months	~ 3 years

Instructions For Use

The resin can be applied to the substrate either before or after the hardener with a short heating zone between the two application points.

Application

Spread Rates

The resin has excellent wetting out properties achieving very low spread rates of 20-50 g/m² depending on the type of paper foil being used, thus providing a very cost-effective adhesive system.

Dilutability

Prefere 4157 has a very good tolerance to water which it retains throughout its shelf life; this improves its washing characteristics and general cleanliness.

The hardener Prefere 5310 is specifically designed for laminating paper foils onto panel substrates in continuous roller presses and provides the necessary speed of cure to enable these presses to run at their optimum. The recommended spread rate is 2 - 10 g/m², i.e. approximately 10 - 16% of resin spread.

It is designed to be “self-cleaning” and prevents contamination on the spreader and laminating rollers.

Other hardeners are available, the choice being dependent on the pressing equipment and the required production speed.



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Caution

TS Resins adhesives and hardeners are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming into contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper – non cloth – towels should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in Material Safety Data sheets for the individual product. These are available on request and should be referred to for fuller information.

The suggestions given in these notes are based on data gained from experience and tests. However, since operating conditions in the user's plant is beyond our control, we cannot assume responsibility for any risks or liabilities, which may result from the use of our products.

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