

Product Technical Data Sheet



Version: 1.6

DORUS KL 442.3051 One Part Cross-Linking PVA Adhesive D3 Water Resistant

Description :

DORUS KL 442.3051 is a precatylised, good shelf life, thermosetting emulsion adhesive. The product is ready for use and requires no mixing of catalysts.

DORUS KL 442.3051 cures to provide rapid high strength bonds resistant to heat and moisture. It can be used in hot press, radio frequency (RF) or cold press. It is recommended for the bonding of most materials as used in the manufacture of automotive interior components ie. Carpets, Fabrics, foam and Textiles to Timber, compressed Cardboard, Triflex and Fibreglass. It is suitable for Fingerjointing, Edggluing, Veneering, Joinery, etc and conforms to BS EN 204 - Exposure group D3.

It is also suitable for lamination and post forming of High Pressure Laminates to particle board and MDF board.

This product has been tested to SCAQMD Rule 1168 and found to have V.O.C. level <15g/L.

Typical Properties :

Appearance :	White liquid, dries clear
Viscosity :	Approx. 4,500 cps
Solids :	Approx. 48 %
pH :	Approx. 3.3
Specific Gravity :	Approx. 1.15
Average Particle Size :	Approx. 7°C
Open Time :	Approx. 8mins (@20°C & 100gsm)

Directions for Use :

DORUS KL 442.3051 adhesive may be applied via powered roll glue spreader or air assisted/airless spray equipment. DORUS KL 442.3051 is designed for use with hot press or radio frequency (RF) equipment or standard cold press setups.

1. Ensure adhesive is stirred well prior to use.
2. All surfaces to be bonded must be clean, dry and free from dust, oil grease etc.
3. Timber moisture content should be between 10% and 14%
4. Ambient and timber temperatures should be above 15°C
5. Can be applied using powered roll glue spreaders, air assisted airless spray equipment, brush, hand roller or extrusion.
6. Is suitable for use with both hot and cold presses.
7. Adhesive should be applied as a thin, even coating to one surface only. Parts should be combined, while the adhesive is wet, using good even pressure (30 to 130psi is recommended) until the adhesive has set.

See cure requirements below.

Hot Press Cure:	Typically 60 - 90 sec @ 100°C (depending on coating weight & substrate thickness)
RF Cure:	A LOW power setting is preferred to produce workable amperage without arcing. A minimal change after the initial amperage drop-off will indicate adhesive is sufficiently set.
Cold Press:	20 - 30 minutes @ 23°C

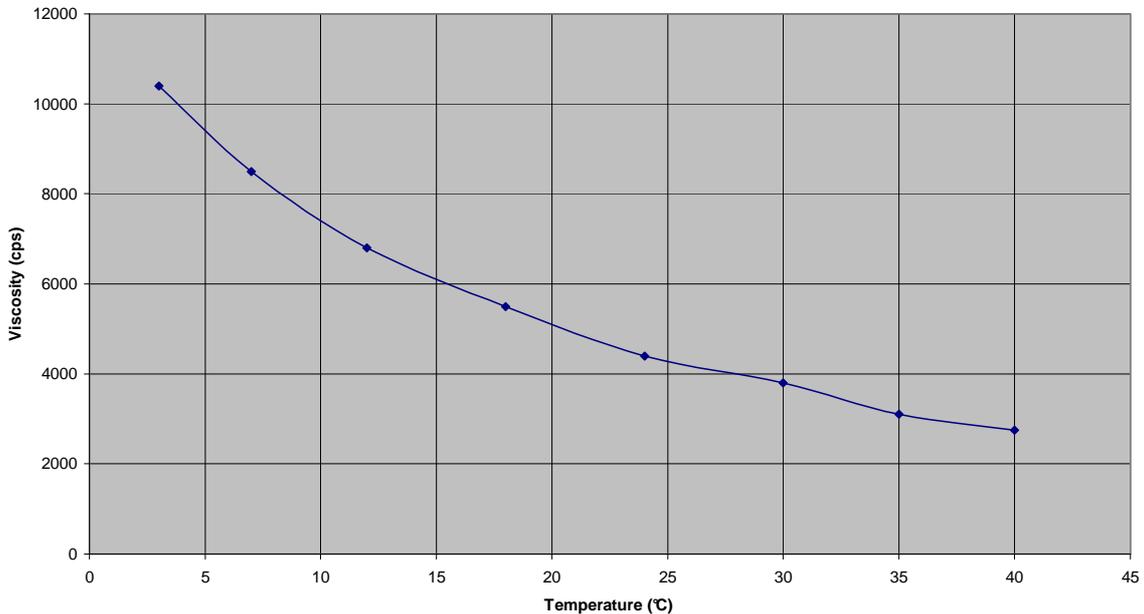
For wood veneer laminates to MDF, plywood, HMR or MR boards, recommended adhesive coating weight is 80 - 120 gsm, depending on surface roughness and porosity.

For lamination of High Pressure Laminates to particle board or MDF board using a hot press, the following settings have been found to be generally suitable:

Adhesive coating weight: 70 - 80 gsm
 Temperature: 80°C, Press Time: 2 minutes, Pressure: 100 - 150psi

DORUS KL 442.3051 will change in viscosity as the temperature changes, roll coaters and other applicators should be adjusted in order to compensate for these viscosity changes. Higher viscosity can create higher coat weights and vice versa. See graph below for the affect of temperature on viscosity within the normal operating window:

442.3051 Viscosity vs Temperature



Supplementary Products :

Previously called Kor-Lok 442.3051.

Limitations :

Due to the nature and consistency of MR MDF and HMR Particle board, it is recommended that the surface is sanded prior to bonding.

DORUS KL 442.3051 should not be used when timber and ambient temperatures are below 10°C.

DORUS KL 442.3051 is unsuitable for load bearing applications.

Clean Up:

Equipment can be cleaned up using water while still wet.

Storage and Handling :

Please read the Material Safety Data Sheet for this product BEFORE it is used .

Viscosity of this product will increase with time of storage . Store material under cover between 5°C and 35°C and away from sources of heat and direct sunlight. Keep from freezing. Use strict stock rotation practices using the oldest batches first.

If the product is classed as a dangerous good, ensure that the product is stored in compliance with the applicable dangerous goods storage regulations. Refer to the products Material Safety Data Sheet for the dangerous goods classification.

Shelf Life :

Best used within 6 months from date of manufacture when stored under the above conditions in the original unopened containers.

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