

Technical Data Sheet



DORUS KL 442.3051

One Part Cross-Linking PVA Adhesive
D3 Water Resistant

Version: 1.6

Description:

DORUS KL 442.3051 is a pre-catalysed, 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 i.e. 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
Minimum Film Forming Temperature:	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 &
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	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

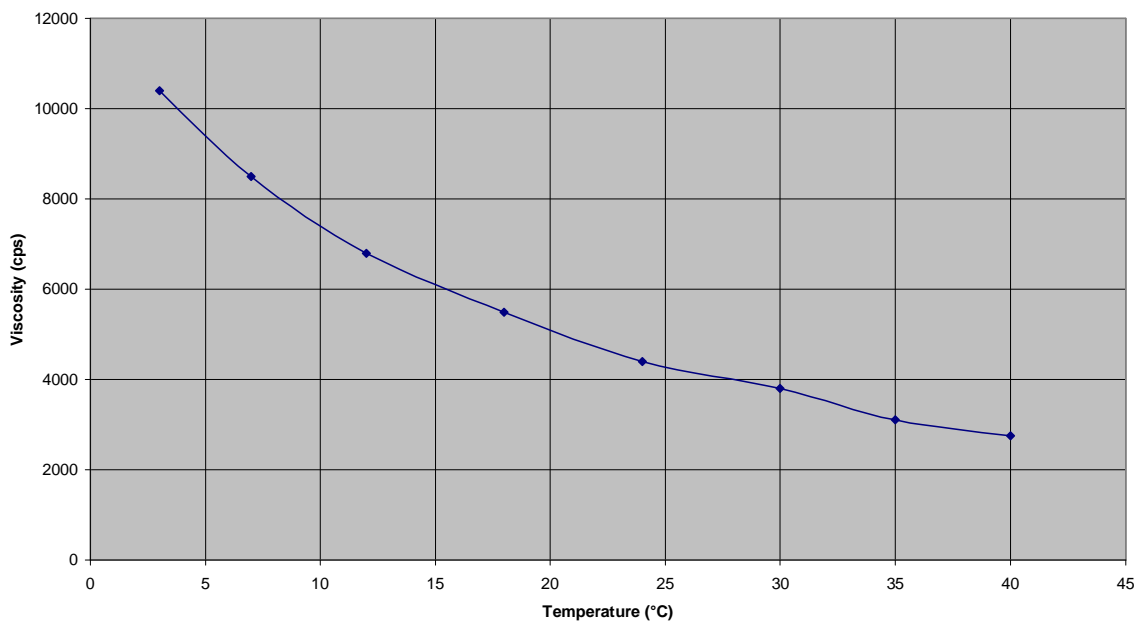
For wood veneer laminates to MDF, plywood, HMR or MR boards, recommended adhesive coating weight is 80 - 120 gsm, depending on surface roughness and porosity.

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 use.

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.

Please ensure that products classed as a dangerous good are stored in compliance with the applicable regulations.

Shelf Life:

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

Last Updated: 09/10/2012

DISCLAIMER

Any information given is, to the best of our knowledge, the best currently available, with respect to our products and their use, but it is subject to revision as additional knowledge and experience is gained. Such information is offered as a guideline for experimentation only and is not to be construed as a representation that the material is suitable for any particular purpose or use. Customers are encouraged to make their own enquiries as to the material's characteristics and, where appropriate, to conduct their own tests in the specific context of the material's intended use. This information is not a license to operate under nor is it intended to suggest infringement of any patent. We guarantee a uniform quality standard for this product. The only conditions and warranties accepted by Henkel in relation to this product or process are those implied by either Commonwealth or State statutes.

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