# RYSTIX SALES c.c.

**Suppliers of Rystix resins & Timbacare sealers & coatings**

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## PRODUCT INFORMATION SHEET

### RYSTIX CLEARBOND P.F. 531-D3 PVA RESIN

**General Properties:** Clearbond PF-531-D3 is a high quality water-resistant general-purpose white coloured copolymer emulsion for bonding a variety of soft and hard woods.
Dries to give a clear glue line and suitable for use in furniture, laminating, finger jointing and general joinery including doors, windows and frames.
Can also be used for laminating on RF and high frequency presses.
Not recommended for structural applications, as it is not a thermosetting product.
Where articles are exposed to direct weathering the glue joints need to be protected by a suitable quality coating.
When used in accordance with the correct recommendations the product conforms to the European Standard EN204 / Class D3 and SANS 10183-2000 / Class D3.

**Features:**
- Very good water and heat resistance after curing for 7 days.
- Improved creep resistance and solvent resistance.

**Packing and storage:** Clearbond is supplied in 100kg plastic-lined metal drums and 25kg plastic buckets and should be stored under mild temperature conditions and away from direct sunlight. (Precaution: Do not freeze)
**Under these conditions storage life is 6-9 months from date of manufacture.**
Containers should be stirred well before use and should be kept closed and resealed at all times when not in use.

**Timber Preparation:** Best results are obtained if all timber is freshly planed, dry and free from dirt or dust. Planer skips, wedging and polished surfaces should be avoided.
The moisture content of all timber should be controlled within the range 7-14%. Preferably it should be between 8-12%.
In excessively cold conditions timber should be stored under cover before use and where possible timber temperature should be in the range 20-25°C.

**Adhesive Application:** Adhesive can be applied by brush, roller, nozzle or jet-type applicators.
Adhesive should be lightly applied to one or both surfaces depending on the timber moisture and the ambient conditions (temperature and humidity).
Under conditions of long assembly, heavier spreads will be necessary to counter dry-out of the glue lines before clamping.
Heavier glue spreads will result in longer clamping times.

**Assembly & Clamping:** Ambient conditions and timber moisture contents and the rate of glue spread will determine the maximum possible open assembly time.
Under average temperature and humidity conditions, open assembly is 10 minutes.
Clamps should be applied as soon as possible after assembly.

Under normal conditions a clamping pressure of 0.7 – 1.5 Mpa is sufficient; it is essential that clamps be re-tightened 5-10 minutes after their initial tightening to allow for collapse during glue squeeze out.

| **Glueline Temperature (°C)** | **Period under pressure (minutes)** |
|---|---|
| 15 | 80 |
| 25 | 30 |
| 45 | 12 |
| 65 | 7 |
| 85 | 4 |

When temperatures are lower and/or conditions are damp a longer clamping time should be used.
The optimum clamping time should be established by trials held under existing conditions in the workplace.
Clearbond performs best when used in dry conditions with ambient temperatures above 15°C and preferably in the range 20-30°C.
Do not use when adhesive or wood substrates are below 8°C, as adhesive may "chalk" leading to delamination.

Before adhesive begins to dry, excess squeeze out and deposits on machinery and equipment may be wiped away using a damp cloth

Further processing may be carried out after 2 hours

**Minimum Film-forming Temperature:** Approximately 7°C ( DIN 53 787 / ISO 2115 )

**Coverage:** Approximately 6sq.m / kg (depending on density and porosity of the timber).

**Viscosity:** Approximately 12000 mPa.s * (ISO 2555 Brookfield viscometer RVT, spindle No.6 @ 20 rpm and $23^0$C)
(* 1 Pascal second = 10 Poise)

**PH:** Approximately 4 @ 23°C ( DIN 53 785 / ISO 1148 )

**Density:** ± 1.1 g/cubic cm. ( ISO 8962 )

**Glass transition Temperature Tg:** Approximately 26°C (DIN 53 765 – DSC heating rate 10°C/min – dried in standard conditioning atmosphere at 23°C and 50% humidity ( DIN EN 23 270 )

**Breaking strength:** Minimum 4.0 kiloNewtons / min. ( SABS method 1032 )

**Amylaceous content:** Nil ( SABS method 1039 )
Note: The water holding capacity of some natural organic fillers may be undesirable in applications where the water is released under pressure.
The swelling effect of water on these fillers may mean they are unsuitable in gap-filling applications. Tests should first be conducted.

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