

➤ **Product Description**

ANCHOR 1564 Hardener is to be used in conjunction with Anchor UF Resin 1530

➤ **Features**

The hardener Anchor 1564 is a formaldehyde binding, filled liquid hardener. Anchor 1564 is recommended for veneering, Board on Frame (BoF) bonding and for production of curved plywood assemblies. Anchor 1564 gives relatively long assembly times and pot lives. Anchor 1564 is suitable for hot bonding operations and can also be used under radio frequency (RF) heating conditions.

Anchor 1530 with Anchor 1564 can give glue lines of durability class C3 according to EN12765/EN205 and MR quality according to BS1203. It is a prerequisite that the gluing is done at hot conditions and that the glue line is fully cured.

The hardener is formulated with a view to be used in automatic mixing equipment, preparing small batches of resin and hardener. It is not recommended to mix larger batches by hand, as the heat evolved will raise the temperature of the glue mix, thus reducing the pot life.

➤ **Application**

- **Mixing:** It is recommended that all mixes should be gauged by weight and not by volume.
- Mixing may be undertaken by hand although for larger mixes, mechanical mixing is recommended.
- It is advisable that the mix be allowed to stand after mixing to allow any entrapped air to be liberated.
- **Preparation:** Ensure all surfaces to be bonded are clean and free from dust. Oily timber should be wiped with an appropriate detergent or degreasing solvent.
- The ideal moisture content of the surfaces to be bonded should be between 5% and 15% with a moisture differential between surfaces of no more than 3%
- **Application:** The mixed adhesive can be applied by brush, roller, hand applicator or mechanical rollers.

➤ **Typical Applications**

- The hardener can be used in conjunction with the Anchor UF Resin 1530 which is used for Hot and Cold Press assembly work.
- Veneering, Sub-assemblies and Flush door manufacture.
- Can also be used with High frequency curing techniques.

➤ **Technical Data**

Appearance	Greyish to white viscous liquid
Viscosity at 25°C, mPas	1500 – 5000
pH	4.0 – 4.5
Density at 25°C, g/cm ³	ca 1.21
Shelf life at 20°C	ca 3 months

➤ **Mixing Ratio**

The hardener is mixed with Anchor 1530 in the following ratios:

Anchor	kg	litre
1530	10	10
1564	2	2.2

It is warned against changing the hardener dosage, e.g. to obtain a longer pot life or shorter pressing time. The correct hardener dosage is important, for several reasons. If the glue mixture is not suitable, our Technical Department will be able to recommend an alternative.

➤ **Pot Life for Anchor UF Resin 1530**

The pot lives of the glue mixture made with Anchor 1530 and Anchor 1564, at different temperatures, are given in the table below.

	Pot life in hours at				
	10°C	15°C	20°C	25°C	30°C
1564	8	4	2	1	½

➤ **Pressing times for Anchor UF Resin 1530**

The pressing times of Anchor UF Resin 1530 with Anchor Resin 1564 Hardener, at different temperatures, are given in the table below.

	Setting times in seconds at				
	70°C	80°C	90°C	100°C	110°C
1564	150	90	70	55	40

The pressing times (basic setting times) stated refer to glue line temperature only and allowance must be made for the heat to travel from the press platens. The heat penetration time will vary depending on press temperature, the heat capacity of the press, the heat transfer of the wood material and distance to the farthest glue line.

When veneering with veneer thicknesses below 1mm, the heat transfer at temperatures above 100°C can be calculated to be 1-2 seconds per 0.1mm veneer thickness. For other applications the table below can be used as a guide to the additional; time required for low and medium density timbers.

Press Temperature	Additional distance per mm distance to furthest glue line
70 - 80°C	2 minutes
90 - 100°C	1 minute

The pressing times apply when bonding soft wood. Denser and less absorbent materials, such as hardwoods and special particleboard grades (moisture resistant) require extended pressing times. On the other hand, the gluing of absorbent materials, such as low density woods, fibre board, particleboard *etc.* can be done with shorter pressing times.

Because so many local conditions affect the pressing times, it is recommended to establish the correct pressing times by running trials using the customer's own equipment.

➤ **Health & Safety**

Reference is made to the relevant Material Safety Data Sheets for Anchor 1530 and Anchor 1564

When the adhesive and the hardener are mixed a chemical reaction will start. The pH of the mixture will be in between the values for the adhesive and the hardener. The free formaldehyde content of the adhesive will be reduced. The acid/salt concentration of the hardener will be diluted.

When handling the adhesive, hardener and the glue mix it is recommended that certain precautions normally taken when handling chemicals are observed. Skin contact with the uncured glue should be avoided, since people with particularly sensitive skin may be affected. It is recommended to wear protective gloves and eye protection where there is a

risk of splashes. Hands and forearms should be thoroughly washed with soap and warm water at the end of a working day.

Adequate ventilation of the workshops should be maintained.

➤ **Caution**

Anchor 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.