

## Technical Data Sheet



# WOODSTIKK PRF STRUCTURAL WEATHERPROOF ADHESIVE



A FIRST CHOICE' PRODUCT FOR ALL WATERPROOF AND HEAT RESISTANT BOND REQUIREMENTS, WOODSTIKK® PRF IS A PHENOL RESORCINOL BASED ADHESIVE SYSTEM WHICH IS WIDELY USED IN THE STRUCTURAL TIMBER ENGINEERING SECTOR FOR THE MANUFACTURE OF LARGE LAMINATED STRUCTURES, EXTERNAL WOOD BONDING APPLICATIONS REQUIRING A HIGH LEVEL OF WATER RESISTANCE AND FOR BONDING DIFFICULT TO BOND WOOD SPECIES AND MODIFIED WOOD, E.G. TEAK AND ACCOYA.

WOODSTIKK® PRF STRUCTURAL WEATHERPROOF ADHESIVE SYSTEM IS SUITABLE FOR USE IN THE PRODUCTION OF HEAT RESISTANT COMPOSITE STRUCTURES, E.G. FIRE-RESISTING DOORS. IT IS RESISTANT TO ACIDS, WEAK ALKALIS, SOLVENTS AND BOILING WATER.

Woodstikk® PRF resin (part A) is mixed with Woodstikk® PRF hardener (part B) and conforms to Adhesive Type I of the European standards for adhesives for load-bearing timber structures (EN301:2013). Woodstikk® PRF will meet the requirement according to EN314 – Class 3 (WBP) for the production of plywood for non-covered exterior use.

### BENEFITS

- High level of water and heat resistance
- Bonds wood, modified or densified woods (including Accoya), mineral fibre reinforced boards, brick, concrete and unglazed porcelain
- Bonds industrial and decorative laminated plastics (phenolic resin based or phenolic resin backed)
- Bonds with radio frequency equipment

### TECHNICAL DATA

	Resin (Part A)	Hardener (Part B)
Appearance:	Reddish brown liquid	Brown liquid
Viscosity @ 25°C (mPas):	400 - 1100	3000
Specific gravity @ 25°C:	1.11 - 1.15 g/cm <sup>3</sup>	1.14 - 1.18 g/cm <sup>3</sup>
pH:	7.2 - 9.0	6.7 - 8.0
Solids content:	52 - 58	72 - 79
Flashpoint (°C)	31	38

### AVAILABLE SIZES

### COVERAGE

2kg kit	15sqm
5kg kit	35sqm
10kg kit	70sqm
20kg kit	140sqm
50kg kit	340sqm



## PREPARATION AND APPLICATION

Ensure that the surfaces to be bonded are smooth, clean and free from dust or other deposits. Wood, plywood, laminated plastics should be of uniform thickness. To avoid wetting difficulties that may arise through case hardening it is good practice to sand plywood before gluing even though it may appear to have been sanded at manufacture.

Before bonding timber that has been treated with a preservative it is necessary to machine or sand the surfaces. Also, the joint moisture content should be checked since this can be increased beyond acceptable level by water borne preservatives and may need to be reduced before gluing. For gluing of load-bearing timber structures with preservative treated wood, a special approval is required. Further advice on the gluing of preservative treated timber is available on request.

When bonding FR grades of wood-based materials such as MDF or particleboard it is possible that the treatment will affect the cure of the adhesive. Advice on the bonding of fire-retardant timber is available on request.

The resin (part A) should be mixed with the hardener (part B) at a ratio of 1:1 by weight, and then applied to the substrate to be bonded, preferably by a manual or mechanical roller. In the manufacture of laminated timber structures, the adhesive should be applied, preferably by roller, to both surfaces at an application rate of 100 – 250 g/m<sup>2</sup>. Application to both surfaces is also advantageous when bonding difficult to bond woods, otherwise, for most standard applications, applying to one surface is sufficient. Once the adhesive has been applied, the substrates should be brought together and pressed or clamped until the

adhesive has fully cured.

The following table gives an indication of cure times based on ambient and hot press temperatures. The basic setting times stated refer to glue line temperatures only and allowance must be made for the heat to travel from the press platen. Heat penetration time will vary according to the density of the wood, moisture content and distance to the farthest glue line. The pressing times apply when bonding absorbent materials such as low and medium density wood. The pressing time must be considerably extended when bonding less absorbent, or high-density materials.

Woodstikk® PRF is well suited for curing under radio frequency heating conditions. Since the necessary pressing times depend on a number of factors, such as the shape of the adherents, the position of the electrodes, the effect of the generator etc, it is recommended to optimise the required pressing using trials

## HANDLING AND STORAGE

The mixing and spreading equipment must be cleaned at the end of the working day. If the glue thickens in the application equipment, the equipment must be immediately emptied and cleaned, otherwise there is a risk that the glue will cure. Cured glue is insoluble and must be scraped off. Warm water (50 – 60°C) is recommended for cleaning.

The resin (part A) and hardener (part B) should be stored firmly sealed in their original containers in a cool dry place (ideally 5°C – 20°C). Shelf life under these conditions is at least 18 months for the resin (Part A) and hardener (Part B). The hardener may show thixotropic behaviour upon standing. This tendency is worse at lower temperatures. In such cases, the material can usually be restored by shaking, stirring and/or gentle heating back to room temperature.

**TABLE 1: HARDENER ADDITION AND POT LIFE**

Hardener Addition: Parts by weight per 100		Pot-life (in hours): Temperature of mixture			
		15°C	20°C	25°C	30°C
Hardener	100	5hrs	3hrs	2hrs	1hr

**TABLE 2: COLD AND WARM PRESSING TIMES**

Glue line temperature:	15°C	20°C	25°C	30°C	40°C
Pressing time:	15hrs	8hrs30	6hrs30	3hrs	1hr

**TABLE 3: HOT PRESSING TIME**

Glue line temperature:	50°C	60°C	70°C	80°C	90°C	100°C
Pressing time:	30mins	12mins	6mins	3mins	2mins	1min

Woodstikk PRF is from the Prefere adhesive range.

**DISCLAIMER:** Due to the variation in materials likely to be handled by prospective users of this product, together with differences in production techniques and ultimate performance required, it is important that this product is thoroughly evaluated under production and end use conditions before being commercially adopted. Such an evaluation should incorporate an ageing test and this test should be repeated if the substrates on which the this product is used are changed in any way or are purchased from a different source. During the evaluation and testing of the product, it is the purchasers/end user's responsibility to carry out appropriate actions for the protection of the environment, the health and safety of its employees and purchasers of its products. No employee of Ureka Global Ltd has any authority to waive or change the foregoing provisions. The above recommendations are made in good faith for the guidance of users and are without liability. Any queries should be made in writing to the head office of Ureka Global Ltd.

Revision date: January 2022

