



# TECHNICAL DATASHEET

## DANAFIX

### Liquid hardener for Urea formaldehyde resin

**Product:****DANAFIX 943G**  
**DANAFIX 943H****Date of issue:** 25.06.2018  
*Previous issues:* 09.12.2015**Company:** DANA LIM A/S  
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Technical Service Ph.: +45 56 64 00 75**Contact person:** Bo Brehmer**Product description and application:**

DANAFIX 943G/H is a PVAc based liquid hardener designed for lamination of pine and spruce in both hot press and HF press. The hardener can be used together with urea formaldehyde resin, special with Prefere 4114.

DANAFIX 943G/H can be used in both automatic mixing equipment and small amount hand mixing as well.

Solid wood panels produced with DANAFIX 943G/H and Prefere 4114 can achieve a formaldehyde emission level below 0.6 mg/h m<sup>2</sup> when recommended glue spread is used.

**Application:****Laminating:**Veneering:.....  
Laminating:.....  
Plywood:.....

DANAFIX 943G/H + Prefere 4114	
	●
	●
	●

**Types of wood:**Soft (ex. pine):.....  
Hard (ex. beech, oak, teak):.....  
MDF:.....  
Chipboard:.....

	●
	●
	●
	●

**Press:**Warm press:.....  
High frequency press:.....

	●
	●

**Packaging size:**

Size	943G	943H
	Article no.	Article no.
20 litre bucket	6031	6023
700 container	6033	6025
1000 litre container	6034	

**Physical / chemical properties:****Hardener:**Type:.....  
Color:.....  
Solids content:.....  
Viscosity (Brookf., 20 rpm, 25°C):.....  
pH:.....  
Shelf life:.....

DANAFIX 943G	DANAFIX 943H
PVAc based liquid hardener	
Yellow	White
Approx. 50 %	
3000 - 6000 mPa.s (viscosity will slowly increase during aging)	
Approx. 3	
6 months at 20°C (at higher temperature the shelf life will be reduced)	

## Directions for use:

**Preparation:** Both surfaces must be clean, free from grease and well adjusted. Optimum results are obtained with newly worked wood.

**Mixing:** Resin and hardener are mixed to a homogenous mass.

**Mixing ratio:** The mixing ratio of hardener to resin is decided by the required pressing time. Addition of 20 - 40% of hardener is recommended. See table below.

GLUE MIX	I	II	III
Prefere 4114	100 pbw	100	100
DANAFIX 943G/H	20 pbw	30	40

**Viscosity of the mixture:** Depending on mixing ratio and the age of the adhesive.

**Pot life:** Depending on mixing ratio and temperature. See table below.

GLUE MIX	POT LIFE IN MINUTES AT			
	10°C	15°C	20°C	25°C
I	120	120	60	45
II	60	45	30	25
III	30	20	12	8

**Pressing time:** Pressing time is depending on temperature, glue mix and the thickness of the laminates.

THICKNESS OF LAMINATE, MM	GLUE MIX	PRESSING TIME IN SECONDS AT		
		60°C	80°C	98°C
20	I	340	220	120
	II	250	175	90
	III	200	140	70
30	I	400	260	140
	II	325	215	110
	III	250	175	90
40	I	450	300	170
	II	375	250	135
	III	300	210	110
50	I	670	500	330
	II	540	380	225
	III	425	310	180

**Application:** The adhesive can be applied with spatula, roller or automatic application.

**Moisture content of wood:** The glue mixtures give the highest bond strength when the moisture content of the wood is 6 – 15%.

**Glue spread of glue mixture:**  
Veneering: 80 – 120 g/m<sup>2</sup>  
Lamination: 140 – 180 g/m<sup>2</sup>

**Open assembly time:** 0 - 15 min, at 20 °C and 50% RH. If assembly time is "closed" it can be increased 5 -10 minutes. Assembly time is reduced at higher temperatures and lower humidity of air and wood.

**Pressure:**  
Softwood approx. 0.5 - 1.0 N/mm<sup>2</sup>  
Hardwood approx. 0.8 - 1.2 N/mm<sup>2</sup>  
In case of tensions in the wood a higher pressure should be applied.

**Cleaning:** Wet uncured adhesive can be removed with water. Cured adhesive can best be removed mechanically.

**Storage:** DANAFIX 943 should be stored at temperature 10°- 25° C in original containers. Protect from freezing and sun light.

All stated data are meant as a guideline. Sufficient tests should be carried out to establish final working conditions.

## **Safety:**

*For further information concerning safety, refer to Safety Datasheet.*

## **Further information:**

### **DANA LIM offers a range of adhesives for professionals:**

100-series: Upholstering adhesives

200-series: Flooring adhesives

300-series: Wall adhesives

### **400-series: Wood adhesives**

500-series: Sealants & PU-foams

600-series: Building-additives, fillers etc.

700-series: Paper-, packaging- and newspaper adhesives

800-series: Hot melt

900-series: Cleaning-, release agents and hardeners.

### **In the 400-series Wood adhesives DANA LIM offers:**

400-series: Special adhesives

410-series: Adhesives for edge-bonding (Cold-Activating)

430-series: Moisture resistant D3-adhesives

440-series: Moisture resistant D4-adhesives

### **450-series: Urea-formaldehyde adhesives**

460-series: Adhesives for dowel-, tenon and finger joints

470-series: Adhesives for foiling of PVC, metals etc.

480-series: Adhesives for lacquered wood

490-series: Adhesives for production of laminated wood for furniture.

*The information and data contained in this data sheet are based on extensive laboratory testing and our practical experiences, and are meant for helping the user to find optimum working methods. As the conditions at the user are beyond our control, we make no warranties concerning the results, achieved by the products. The information's in this technical data sheet are typical values, intended as a guideline. They should not be regarded as product specifications. Please also refer to our standard sales conditions and terms of delivery.*