



TECHNICAL DATASHEET

DANAFIX

Melamine reinforced urea-formaldehyde adhesive

Product:
**DANAFIX 458 and
Hardener H-5108**

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Product description and application:

DANAFIX 458 is a liquid melamine reinforced urea-formaldehyde resin, when it is used together with the liquid hardener H-5108, provides excellent gluing for edge-lamination of pine and spruce.

The glue system is formulated for materials with relatively large differences in moisture content and gives rapid bonding. It is a thermosetting adhesive, there is no risk of glue line creep.

Solid wood panels produced with DANAFIX 458 are of E1-quality and the bonds are compliant to the requirements of C3 quality to EN 12765.

Application:

	DANAFIX 458 + Hardener H-5108
Veneering:.....	●
Laminating:.....	●
Plywood:.....	●

Types of wood:

Soft (ex. pine):.....	●
Hard (ex. beech, oak, teak):.....	●
MDF:.....	●
Chipboard:.....	●

Press:

Warm press:.....	●
High frequency press:.....	●

Item Numbers:

DANAFIX 458 – 20 l bucket:.....	8423
DANAFIX 458 – 1000 l container:.....	8425
Hærdet H-5108 – 10 l canister:.....	6055090
Hærdet H-5108 – 1000 l container:.....	ZF5108

Physical / chemical properties:

Adhesive:	DANAFIX 458	Hardener H-5108
Type:.....	Melamine-Urea-formaldehyde	PVAc based
Color:.....	White	Yellow
Solids content:.....	Approx. 65 %	Approx. 47 %
Viscosity (Brookf., 20 rpm, 25°C):..	Approx. 1500 mPa.s (viscosity will slowly increase during aging)	Approx. 500 mPa.s
Specific gravity:.....	Approx. 1.29 g/cm ³	Approx. 1,11 g/cm ³
pH:.....	Approx. 8.0	2,5-3,5
Shelf life:.....	3 months at 20°C (at higher temperature the shelf life will be reduced)	6 months at 20°C
Content of free formaldehyde:.....	0.2 - 1% (measured 7-10 days after production)	-

Directions for use:

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

Mixing: Adhesive and if necessary filler or wetting agent are mixed to a homogenous mass and following mixed thoroughly with the hardener.

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

GLUE MIX	I	II	III
DANAFIX 458	100 pbw	100	100
Hardener H-5108	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: DANAFIX 458 gives the highest bond strength when the moisture content of the wood is 6 – 15%.

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/mm²
 Hardwood approx. 0.8 - 1.2 N/mm²
 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: Optimal storage temperature is 15 – 20°C. The table below shows the shelf life of DANAFIX 458 at different storage temperatures.

STORAGE TEMPERATURE	SHELF LIFE
15°C	Approx. 4 months
20°C	Approx. 3 months
25°C	Approx. 2 months
30°C	Approx. 1 month

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.