# **Product Information**



## Laminated beam MUF system 1247 / 2526

- One of the fastest MUF on the market
- Flexible mix ratio to fit different production needs

Light coloured system for laminated beam and finger joints in load bearing timber structures

**Product Specification** 

	1247			2526		
Product	MUF adhesive			Hardener		
Delivery Form	Liquid			Liquid		
Colour	Opaque white			White		
Viscosity	10000 - 25000 mPas			1700 - 2700 mPas		
(at time of production)	(Brookfield LVT, sp.4, 12 rpm, 25°C / 77°F)			(Brookfield LVT, sp.4, 60 rpm, 25°C / 77°F)		
Density	Appr. 1270 kg/m³			Appr. 1070 kg/m <sup>3</sup>		
Ph	9,5 - 10,7			1,3 - 2,0		
(at time of production)	(at 25°C / 77°F)			(at 25°C / 77°F)		
Dry content	64 - 69%			Not applicable		
Storage Life	15°C/59°F	20°C/68°F	30°C/86°F	15°C/59°F	20°C/68°F	30°C/86°F
(months)	4	4	2	4	4	2,5
	Recommended storage temperature 15°C to 25°C / 59°F to 77°F.			Recommended storage temperature; 15°C to 25°C / 59°F to 77°F.		
Storage Conditions	Only short time exposure to temperatures below 10°C / 50°F and above 30°C / 86°F are acceptable.			Only short time exposure to temperatures below 10°C / 50°F and above 30°C / 86°F are acceptable.		
	The product can be frozen but it must be thawed, raised to room temperature and homogenized before usage.		Frozen and thawed product cannot be used due to irreversible changes in the product.			
Formaldehyde Info	≤0.8% free formaldehyde			Contains no formaldehyde		

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Reason for change: change position and information of approvals

**Contact Information** 

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### **Glue Line Properties**

Light coloured glue lines. High water and weather resistance.

Fulfils the requirements according to EN 301 (for glue type I and II, service classes 1, 2, 3), EN 391, EN 392 and DIN 68141.

1247 with hardener 2526 is approved by Norsk Treteknisk Institutt (NTI), Norway, Materialprüfungsanstalt Universität Stuttgart - Otto-Graf-Institut (MPA), Institut Technologique FCBA, France, SKH/KOMO (DHBC No. 32389), Holland and BUtgb (ATG 06/2662) Belgium for the production of load-bearing timber structures.

1247 with hardener 2526 fulfils the requirements according EN 301 for glue type I for service classes 1, 2, 3 in EN 386 as well as the requirements in DIN 68141 for the production of load-bearing timber structures according DIN 1052.

#### **Approvals**

The combination can be used for the production of laminated beams according to EN 14080.

It is allowed to colour the products with Acomix WZ1. The maximum allowed addition is 1 part by weight to either the adhesive or the hardener or to both as long as the total amount is maximum 1%

The intention for use of this adhesive system is with separate application of glue and hardener. However the system is also approved to be used as a mixed system. When glue and hardener are applied separately only Casco Adhesives´ Separate Ribbon Spreader 6230 is allowed for use. When separate application is used the maximum allowed bond-line thickness is 0.3 mm.

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Applications	Laminated Beams, Duo-Trio Beams, I-Beams					
Press Type	Clamp carrier, Cold Press, Hot Press, Continuous Press, and High Frequency press					
Press Temperature	Minimum pressing temperature is 20°C / 68°F					
	Glue joint to	emperatur	е	Mixing ratio 100:20		
Pressing time when a thin glue line is	20°C / 68°F			5h 45'		
	Glue joint temperature			Mixing ratio 100:50		
guaranteed	20°C / 68°F			2h		
(approx. 0.1 mm)	Glue joint temperature			Mixing ratio 100:100		
	20°C / 68°F			1h 5'		
	Glue joint temperature			Mixing ratio 100:20		
	20°C / 68°F			5h 45'		
Pressing time according to EN 302-6	Glue joint to	Glue joint temperature		Mixing ratio 100:50		
(0.3 mm glue line)	20°C / 68°F			3h 15'		
	Glue joint temperature		Mixing ratio 100:100			
	20°C / 68°F			3h		
	Mixing ratio	15°C/59°F		20°C/68°C	30°C/86°C	
Pot Life	100:20		-	40'		
FOI LIIE	100:50		-	15'		
	100:100			8'		
	Minimum 0,5 M	Pa for so	oft wood		1	
	Minimum 1,0 M	Pa for ha	ard wood	d.		
Pressure	In laminated beam production:					
	Minimum 0,7 MPa for 33 mm lamellas.					
	Minimum 0,9 M	Pa for 45	mm lar	mellas.		
	Gluing conditions		Mixing Ratio		Max Closed	
	250 g/m² / 51 lbs/1000 ft²		100:20		30'	
A a a a mala la a Tirra a	400 g/m <sup>2</sup> / 82 lbs/1000 ft <sup>2</sup>		100:20		2h	
Assembly Time (20°C / 68°F)	250 g/m <sup>2</sup> / 51 lbs/1000 ft <sup>2</sup>		100:50		22'	
(20 0 / 00 1 /	400 g/m² / 82 lbs/1000 ft²		100:50		1h 20'	
	250 g/m² / 51 lbs/1000 ft²		100:100		18'	
	400 g/m² / 82 lbs/1000 ft²		100:100		50'	

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	100 : 20 - 100 (adhesive: hardener)	
Mixing Ratio (by weight)	The accuracy in the hardener amount shall be ±3 pbw both when the glue and hardener are used in separate application or as a glue mixture.	
Glue Spread	170 - 450 g/m², for laminated beams preferably 250 - 450 g/m²	
Moisture content of wood	8 - 15%, for laminated beams preferably 10 - 12%	
Preparation of wood	For best result the wood must be smoothly planed. For optimum bond strength the bonding operation shall take place within 24 hours after preparation.	
Temperature of wood	In order to meet the given press times the temperature of the wood must not be below 20°C / 68°F.	
Post curing	After the pressing time, the bond line has enough strength for the construction to be handled. Full strength will be reached after a certain time, depending on the pressing time and the pressing temperature.	

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Machinery	
Applicator	6230-12 Separate ribbon spreader for MF and MUF (two component system)
	6230-52 Separate ribbon spreader for MF and MUF (three component system
	6231- Ribbon spreader
	6235- Roller spreader width <300mm
	6237- Roller spreader width >400mm
Mixer	6201- Mixing system for UF, PRF, MUF
	6203- Mixing system for UF, PRF, MUF
	6205- Mixing and sometimes applying system for MUF, PRF, UF
Accessories	6205-Pulse wheel
	6213- Metering system for UF, PRF, MUF
	6246- Cooler
	6257- lamella temperature sensor
	6261- Cleaning equipment
	6262- Waste water disposal system
	6266- Casco glue log
	6282- Control unit
	6284- Level sensors
	6289- Day tanks

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Handling a	nd HSE	info
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Handling	Always use gloves and goggles when handling the product.		
Cleaning	Glue on skin should be washed with soap and water. For the equipment, use lukewarm water w addition of Glue wash 4450 or Washing agent 2704 (for more info see General Info). Cleaning must start before the system cures.		
Waste handling - of the products	Glue - Is normally classified as hazardous waste (contains free formaldehyde.)		
	Hardener - Depending on classification hardeners may be considered as hazardous waste, check the SDS (section 13).		
	Mixed glue and hardener – Can normally be treated as non hazardous waste when fully cured.		
	<b>NOTE!</b> There might be national and/or local regulatory differences, therefore always keep a dialogue with the local authorities.		
Waste water treatment	Chemical precipitation → drain*		
- of the waste water	Biological treatment → drain*		
	Mechanical precipitation → drain*		
	* municipal sewage with biological treatment		
	<b>NOTE!</b> There might be national and/or local regulatory differences, therefore always keep a dialogue with the local authorities.		
	For more info, see General Information below.		
Health and Safety	For more information, please see respective SDS.		

For more information regarding the above mentioned data, see respective section below

#### Legal clause

The information is based on laboratory tests and practical experience. It is introductory and intended to help the user find the most suitable method of working. Since the user's production conditions are beyond our control, we cannot be held responsible for the results of the work which is affected by local circumstances. In each particular case testing and continuous control are recommended.

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