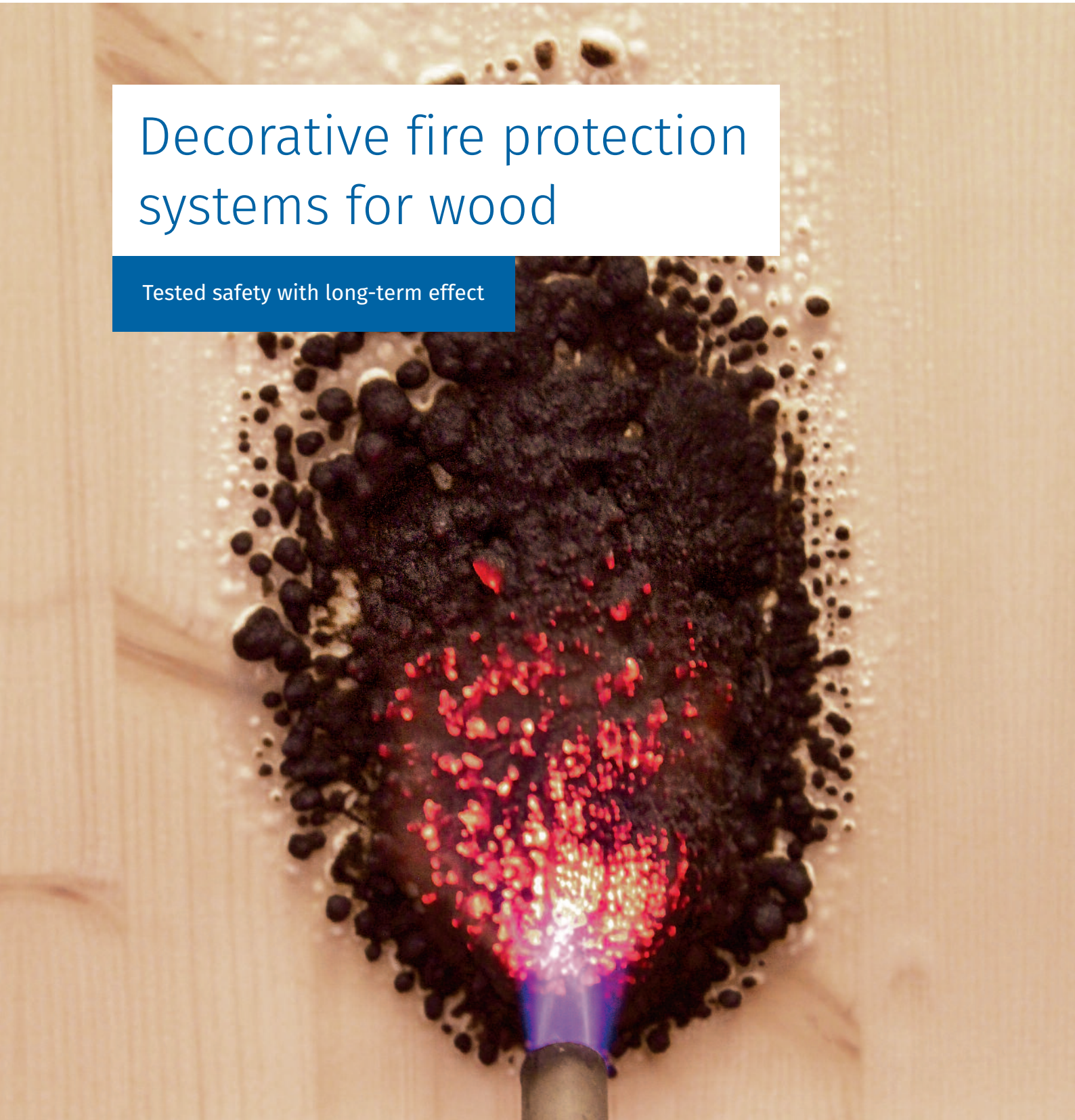


# Decorative fire protection systems for wood

Tested safety with long-term effect











# Building with wood? Sure thing!

## **Wood as a building material: popular but inflammable!**

Wood is an organic building material and as such is becoming ever more popular. Not only its naturalness but also its warmth and cosiness have a positive effect on living comfort. In addition, it presents excellent static and mechanical properties that make especially well suited for construction work. As a construction material it still has the same properties as fire wood - it burns!

## **The solution: The fire protection systems from Remmers**

The use of wood in areas with higher requirements with regard to fire protection is therefore limited.

The Remmers fire protection systems for wood constitute a pragmatic solution for allowing a decision in favour of wood, especially in areas with more stringent requirements for fire protection.

Our fire protection systems for have been tested according to the relevant national and international standards.

Our fire protection systems prevent flash-over in a given time and reduce the amount of smoke produced. This aids fire fighters in rescuing humans and animals.



# Impregnation & Decorative Coating System

## Fire protection by vacuum pressure impregnation

This Remmers fire protection system consists of a fire protection impregnation that can optionally be coated over with a decorative finish. The fire protection salt Adolit BSS1, which is applied in a vacuum pressure process and makes the wood fire resistant, is the core element of the system. In the event of fire the following physical and chemical processes take place. Water is separated, generating a cooling and quenching effect. In addition, this prevents chemical reactions with oxygen. Within the fabric of the wood, an active, forced carbonization process creates a barrier that insulates the wood from the heat source.

The one-pot coating systems Induline DW-618 (WF) / LW-718 (WF) are perfectly tailored to the Adolit BSS1 impregnation agent and can be used to protect the surface with a decorative varnish or opaque finish (for example in RAL colours), without loss of fire resistance. Due to their moderate application rates, these two coating preserve the natural texture of the wood substrate.

### Customer benefits in short

- (Decorative) protection against fire for wood
- Wide application range for building elements made from fir
- Fire protection class B-s2, d0 acc. to EN-13501-1
- Complete system with technical approval
- Natural, matt surface
- Translucent or opaque finish possible



# Adolit BSS 1

Water-soluble, boron-free fire retardant  
for wood impregnation

Application range:	<ul style="list-style-type: none"><li>■ Interior wood</li><li>■ Roof structures</li><li>■ Wall and ceiling panels</li><li>■ Wall and ceiling constructions</li><li>■ Shop fitting and trade fair stands</li><li>■ Theatre and stage constructions</li><li>■ Prefabricated timber houses</li><li>■ Stables, sheds</li></ul>
Properties:	<ul style="list-style-type: none"><li>■ Improves the fire behaviour of wood</li><li>■ Free from boron and biocides</li><li>■ Clear once dry: does not stain the wood</li><li>■ The impregnated wood retains its natural appearance</li><li>■ Approved for use in systems with selected decorative coatings</li><li>■ Easy to prepare with water</li><li>■ For use by professionals</li></ul>
Test standards:	Reaction to fire: EN 13501-1 (B-s2, d0)
Application / Directions:	<ul style="list-style-type: none"><li>■ Vacuum pressure impregnation process (To produce a 17% solution, mix 17 kg of the product with 83 l of water)</li><li>■ Pre-vacuum: - 0.9 bar (min. 30 minutes)</li><li>■ Pressure phase: <math>\geq 9</math> bar (min. 4 hours)</li><li>■ Post-vacuum: - 0.7 bar (min. 15 minutes)</li><li>■ After re-drying (wood moisture content max. 15%) and removal of the excess salt residues by brushing, the treated wood can be coated with approved decorative coatings (see system products).</li></ul>
Application rate:	$\geq 25$ kg salt/m <sup>3</sup>
Can be worked over:	<ul style="list-style-type: none"><li>■ Re-drying: after approx. 4 weeks (at 23 °C and 50% RH)</li><li>■ Technical drying in a drying chamber is recommended</li><li>■ Low temperatures, poor ventilation and high humidity delay drying</li><li>■ Wood moisture content may only be measured using the Darr method</li></ul>



System products	Art. no.
Induline LW-718 WF	(2668)
Induline DW-618 WF	(2664)
VP 20468 Antibac	(0365)

Quantity per pallet	30
Packaging unit	25 kg paper bag
Container key	25
Colour / Art. no.	
clear 2160	■

# Induline DW-618 WF

Water-based, opaque one-pot coating system for interior – fire behaviour tested in accordance with EN 13501-1

Application range:	<ul style="list-style-type: none"> <li>Interior wood</li> <li>Woods impregnated with Adolit BSS1</li> <li>Building elements with no or limited dimensional stability</li> <li>Roof structures</li> <li>Wall and ceiling panels</li> <li>Wall and ceiling constructions</li> <li>Shop fitting and trade fair stands</li> <li>Theatre and stage constructions</li> <li>Prefabricated timber houses</li> <li>Stables, sheds</li> <li>For use by professionals</li> </ul>
Properties:	<ul style="list-style-type: none"> <li>Approved for system use with Adolit BSS1</li> <li>Matt</li> <li>Preservation of the wood structure</li> <li>Less discolouration due to water-soluble substances in the wood</li> <li>Quick drying: 2 coats can be applied in one day</li> <li>Water-based: does not give off any unpleasant odours and tools can be cleaned with water</li> </ul>
Test standards:	Reaction to fire: EN 13501-1 (B-S2, d0), as part of system.
Application / Directions:	<ul style="list-style-type: none"> <li>Stir well, including during application or after a break in work</li> <li>Application by brush, spraying</li> <li>Flow cup gun: nozzle size: 2.0 - 2.5 mm atomiser air pressure: 2.0 - 3.0 bar 2,0 – 3,0 bar</li> <li>Airless spraying: nozzle size: 0.28-0.33 mm material pressure: 80-100 bar (use yellow gun filter)</li> <li>airmix spraying: nozzle size: 0.28 – 0.33 mm material pressure: 70 – 90 bar atomiser air pressure: 1.0 – 2,0 bar</li> <li>After drying and, if necessary, intermediate sanding (P 280 - 320), carry out a second working operation</li> <li>Seal opened containers well and use contents as soon as possible</li> </ul>
Application rate:	100 – 140 ml/m <sup>2</sup> per working operation in 2 working operations
Can be worked over:	can be coated over after approx. 4 hours (at 23 °C and 50% RH)



System products	Art. no.
Adolit BSS 1	(2160)

Quantity per pallet	96	22
Packaging unit	5 l tin bucket	20 l tin bucket
Container key	05	20
Colour / Art. no.		
white 2664	■	■
special colours 2665	■	■



# Induline LW-718 WF

Water-based, transparent / translucent one-pot coating system for interior – fire behaviour tested in accordance with EN 13501-1

Application range:	<ul style="list-style-type: none"> <li>■ Interior wood</li> <li>■ Woods impregnated with Adolit BSS1</li> <li>■ Building elements with no or limited dimensional stability</li> <li>■ Roof structures</li> <li>■ Wall and ceiling panels</li> <li>■ Wall and ceiling constructions</li> <li>■ Shop fitting and trade fair stands</li> <li>■ Theatre and stage constructions</li> <li>■ Prefabricated timber houses</li> <li>■ Stables, sheds</li> <li>■ For use by professionals</li> </ul>
Properties:	<ul style="list-style-type: none"> <li>■ Approved for system use with Adolit BSS1</li> <li>■ Matt</li> <li>■ Preservation of the wood structure</li> <li>■ Protects the wood from moisture and UV radiation</li> <li>■ Quick drying: 2 coats can be applied in one day</li> <li>■ Water-based: does not give off any unpleasant odours and tools can be cleaned with water</li> </ul>
Test standards:	Reaction to fire: EN 13501-1 (B-S2, d0), as part of system.
Application / Directions:	<ul style="list-style-type: none"> <li>■ Stir well, including during application or after a break in work</li> <li>■ Application by brush, spraying</li> <li>■ Flow cup gun: nozzle size: 2.0 - 2.5 mm atomiser air pressure: 2.0 - 3.0 bar 2,0 – 3,0 bar</li> <li>■ Airless spraying: nozzle size: 0.28-0.33 mm material pressure: 80-100 bar (use yellow gun filter)</li> <li>■ Airmix spraying: nozzle size: 0.28 – 0.33 mm material pressure: 70 – 90 bar atomiser air pressure: 1.0 – 2,0 bar</li> <li>■ After drying and, if necessary, intermediate sanding (P 280 - 320), carry out a second working operation</li> <li>■ Seal opened containers well and use contents as soon as possible</li> </ul>
Application rate:	100 – 140 ml/m <sup>2</sup> per working operation in 2 working operations
Can be worked over:	can be coated over after approx. 4 hours (at 23 °C and 50 % RH)



System products	Art. no.
Adolit BSS 1	(2160)

Quantity per pallet	96	22
Packaging unit	5 l tin bucket	20 l tin bucket
Container key	05	20
Colour / Art. no.		
clear 2668	■	■
special colours 2669	■	■







# Intumescent coating and protective finish

Fire protection systems applied by brush, roller or spraying

This system comprises an intumescent coating as well as a protective sealant that can be applied optionally. The clear Remmers Intumescent Coat, when exposed to direct contact with flames or high temperatures forms a microporous foam layer, which can be as thick as 3 cm. This foam layer offers a strong insulation against fire and prevents oxygen in the air reaching the wood surface thus strongly delaying the combustion process. Significantly reducing the combustion rate means more time for fire fighting and rescue operations. Remmers Protective Sealer can optionally be used as a finishing coat to protect the Remmers Intumescent Coating.

## Customer benefits in short

- Wide application range indoors
- For solid wood and wood-based materials
- Reaction to fire: EN 13501-1 (B-s1, d0)
- With general technical approval
- Artisanal application possible
- Clear, matt finish

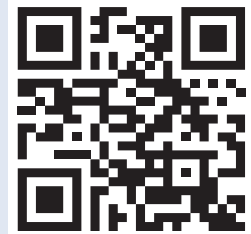


# Intumescent Coat

Water-based, transparent intumescent coating

Application range:	<ul style="list-style-type: none"> <li>Indoors (e.g. roof structures, wall and ceiling panels)</li> <li>Schools, restaurants, hospitals, residential and business buildings etc.</li> <li>Not suitable for outdoor areas nor indoors at permanently high levels of air humidity (above 70 %) or on surfaces exposed to mechanical loads (doors, windows, floors, furniture, etc.)</li> <li>Wood and wood-based materials</li> </ul>
Properties:	<ul style="list-style-type: none"> <li>Intumescent coating for delaying spread of flame</li> <li>Solid wood, chipboards and veneer plywood</li> </ul> <p>Reaction to fire EN 13501-1 (B-s1, d0)</p>
Test standards:	Reaction to fire: EN 13501-1 (B-s1, d0)
Application / Directions:	<ul style="list-style-type: none"> <li>Application by brush, roller or spraying</li> <li>Airless spraying:                             <ul style="list-style-type: none"> <li>nozzle size: 0.33 mm</li> <li>material pressure: 80 – 100 bar</li> </ul> </li> <li>Airmix spraying:                             <ul style="list-style-type: none"> <li>nozzle size: 0.33 mm</li> <li>material pressure: 80 – 100 bar</li> <li>atomiser air pressure: 1.5 – 2,0 bar</li> </ul> </li> </ul>
Application rate:	350 g/m <sup>2</sup> (in 1 – 2 layers)
Can be worked over:	<ul style="list-style-type: none"> <li>The 2<sup>nd</sup> coat can be applied after approx. 6 hours</li> <li>Coating with Protective Sealer: after at least 48 hours</li> </ul>

Quantity per pallet	16
Packaging unit	25 kg tin bucket
Container key	25
Colour / Art. no.	
clear      2157	■



System products	Art. no.
Protective Sealer	(2155)



# Protective Sealer

Solvent-based, transparent, matt protective finish in system with Intumescent Coat

Application range:	<ul style="list-style-type: none"> <li>Decorative protection for intumescent coatings</li> <li>For surfaces with higher requirements, such as wall and ceiling panels in gymnasiums, bowling alley, public buildings etc.</li> </ul>
Properties:	<ul style="list-style-type: none"> <li>Prevents soiling of the fire protection surface</li> <li>Compensates glossiness of the intumescent coating</li> </ul>
Test standards:	Reaction to fire: EN 13501-1 (B-s1, d0)
Application / Directions:	<ul style="list-style-type: none"> <li>Application by brush, roller (do not use Moltopren rollers), spraying</li> <li>Airless spraying: nozzle size: 0.28 mm material pressure: 60 – 80 bar</li> <li>Airmix spraying: nozzle size: 0.28 mm material pressure: 60 – 80 bar atomiser air pressure: 1.5 – 2,0 bar</li> </ul>
Application rate:	max. 50 g/m <sup>2</sup>
Can be worked over:	<ul style="list-style-type: none"> <li>Dust-dry: after approx. 2 hours</li> <li>Dry: after approx. 24 hours</li> </ul>



Quantity per pallet	30
Packaging unit	10 kg tin bucket
Container key	10
Colour / Art. no.	
clear, matt	2155

System products	Art. no.
Intumescent Coat	(2157)

