



Multiboard®

Release agents and aids for the
production of wooden composite boards

Multiboard – release agents for the woodworking industry

Our innovative Multiboard product line offers a powerful range of high quality release agents for wood composites. Our broad product range offers optimal solutions for applications in the particle board industry - for both spraying and roller applications.

Zeller+Gmelin is aware of its customers' problems. In co-operation with its customers, lubricating greases and release agents for the most diverse uses have been developed as close to working conditions as possible in order to meet the technical requirements for each individual case. The consistently high quality of our products means you achieve the greatest possible operational safety. You have a capable system supplier and problem solver in us; our research and development as well as our production center are all under one roof.

Your benefits:

- High operational safety and cost efficiency
- Free from substances which impair the lacquering process
- Improvement in industrial hygiene because products are not classified as harmful
- Excellent storage stability
- Reduction in costs, thereby optimizing production processes
- Solutions tailored to your manufacturing processes

We are certified in accordance with DIN EN ISO 9001:2008 (quality management) and DIN EN ISO 14001:2009 (environmental management).



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Multiboard – release agents for the woodworking industry

A variety of Multiboard release agents are available for the production of OSB panels and fiberboard. Depending on the production process, specific products for the production of particle board and fiberboard exist in the woodworking industry.

**Multiboard Extra *
(SN 27920)**

A water-soluble concentrate for producing release agents which are used in the manufacture of chipboards and fiberboard, particularly with isocyanate bonding (PMDI). Ideally suited for the production of OSB panels. The product has excellent wetting behavior and is free from properties which impair the lacquering process.

**Multiboard Spezial *
(SN 26860)**

Release agent for the manufacture of fiberboard or OSB panels (also with PMDI bonding) in the woodworking industry. The product has excellent wetting behavior and outstanding separation properties when bonding with UF/MUF resins. Furthermore, it can be used for the production of wood panels and coreboards. At higher concentrations, Multiboard Spezial can also be used as a slip agent for the milling of tongue and groove joints. The product was developed specifically for wooden composite boards which will ultimately be lacquered.

**Multiboard Basic *
(SN 27810)**

Release agent for the manufacture of chip boards and fiberboards in the woodworking industry. Multiboard Basic exhibits excellent separation properties when bonding with UF/MUF resins. The product has excellent wetting behavior, is free from properties which impair the lacquering process and exhibits outstanding storage stability. Multiboard Basic can be applied by means of spraying or rolling devices.

**Multiboard Universal
(SN 29800)**

A water-soluble concentrate for producing a release agent for the timber board industry. Typical areas of application include the manufacture of fiber- or chipboard. The product exhibits excellent separation properties when bonding with urea-formaldehyde (UF). Furthermore, it can be used for the production of wood panels and coreboards. At higher concentrations, Multiboard Universal can also be used as a slip agent for the milling of tongue and groove joints.

**Multiboard Steam Boost
(SN 2686V5)**

Special product for increasing the amount of water on the forming belt which causes a blast of steam at the press inlet, accelerating the hardening of the glue used and thus helping to increase productivity.

* For these products, an independent test certificate exists which confirms that substances which impair the lacquering process are not used.



Application equipment manufacturer

Multiboard products have proven themselves in the use of different methods of application. Furthermore, there is close cooperation between ZG and application equipment as well as forming belt manufacturers.

In the production of fiberboard/chipboard, it is generally imperative to apply release agents to the fiber mat and conveyor belt. The use of our release agents prevents the fiber mat from adhering to the conveyor belt and optimizes the pressing process and the cleanliness of the steel belt. By optimizing the board surface after the pressing process, the subsequent grinding operations can be minimized. The release agent is applied by means of spraying or rolling devices.



weko

Application equipment manufacturer WEKO Weitmann & Konrad GmbH & Co. KG has granted us approvals for the following products:

- **Multiboard Basic (SN 27810)**
- **Multiboard Spezial (SN 26860)**
- **Multiboard Extra (SN 27920)**

The spray application is performed by means of a rotor application system.



WESTLAND

Development company Westland Gummiwerke GmbH & Co. KG has confirmed the following release agents to be media resistant in accordance with DIN 53521:

- **Multiboard Basic (SN 27810)**
- **Multiboard Spezial (SN 26860)**
- **Multiboard Extra (SN 27920)**

The test results attest low to moderate swelling effects and interactions between the specified media and elastomer materials tested.

If required, we can gladly send you the approvals for each individual product.

Water-miscible cooling lubricants

Our water-miscible cooling lubricants are already established around the world, and, among others, are used in the post-processing of cutting tools in the wood products industry.



Processes	Materials					Recommended water hardness of preparation water	Mineral oil content	Working concentration	pH value of concentration	Refractometer correction factor
	Molding	Steel	High-strength steel	Aluminium	Non-ferrous metal					
Zubora 10 H Plus (SN 20990)						> 12° dH	45%	3 – 7%	5% 9,1	1,1
Zubora 15 H Plus (SN 23500)						> 12° dH	45%	3 – 7%	5% 9,1	1,1
Zubora TKS (SN 90000)						4° – > 20° dH	0%	2,5 – 3,5%	3% 9,1	1,4

Universally applicable cooling lubricant stable over long periods, for up to moderately difficult cutting operations. Also optimally suited for grinding.

Bactericide-free, universally applicable cooling lubricant stable over long periods, for up to moderately difficult cutting operations and grinding. With particularly high corrosion protection.

Fully synthetic, boron-free, water-soluble cooling lubricant specially for grinding. The product has extremely strong corrosion protection properties and can be used for soft, medium-hard and hard water up to over 20° dH. Thanks to the particularly low production of foam, good observation of the grinding process is possible.

Thermal oils

Zeller+Gmelin offers thermal oils specially tailored to your requirements which exhibit excellent heat transfer properties as well as high oxidation stability. Depending on the application, both mineral-oil-based and synthetic thermal oils are available.

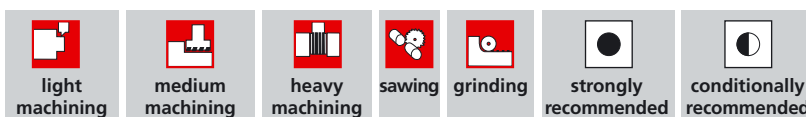
Divinol WTO (SN 33340)

The mineral-oil-based thermal oil is used for pressure-free, indirect heating of heat transfer units in the plastic, woodworking, metal, construction and chemical industries. The product is used in systems which operate with flow temperatures of up to +320 °C (max. permissible film temperature +340 °C). Divinol WTO has excellent heat transfer properties and high oxidation stability and provides high corrosion protection.

Divinol WTO SYN 15 (SN 70610)

A synthetic thermal fluid based on high-boiling aromatic hydrocarbons is used in closed heat transfer systems with forced circulation. The product is ideal for the indirect heating of reactors, autoclaves, distillation columns, processing machines, dryers and heat exchangers. It is also suitable for use in heating and cooling systems.

For our complete range of products, please visit www.zeller-gmelin.de



Industrial lubricants

Zeller + Gmelin manufactures a wide range of lubricants for various applications. These greases are perfectly suited for the harsh production conditions in the wood products industry.



Designation/ part number	NLGI-class	Thickener/ base oil	Operating temperature	Drop point	Base oil viscosity at 40 °C/mm ² /s	Labeling according to DIN 51825 or ISO 6743-9
Divinol Lithogrease G 421 (SN 20160)	2	Lithium-complex soap/mineral oil/ polyalphaolefin	-35 to +160 °C	230	130	KP 2 P-30 ISO-L-XBDHB 2
Water-resistant, semi-synthetic complex soap grease for rolling and plain bearings with high thermal and mechanical loads. Approved by the German Army in accordance with NATO Code G-421.						
Divinol Lithogrease 2 B (SN 21711)	2	Lithium-complex soap/mineral oil	-30 to +150 °C	230	220	KP 2 N-30 ISO-L-XCDHB 2
Water-resistant, EP-alloyed complex soap grease for rolling and plain bearings with high thermal and mechanical loads, especially for all wheel hubs and release bearings of couplers.						
Divinol Fett CaX 2 (SN 24730)	2	Calcium complex soap/mineral oil	-30 to +150 °C	250	100	KP 2 N-30 ISO-L-XCDHB 2
Conventional calcium complex soap grease for use under steady exposure of water, e.g. casting processes in the steel industry or as universal grease in the cement industry (not approved for sprocket lubrications).						
Divinol Fett EP 2 (SN 85430)	2	Lithium soap/ mineral oil	-30 to +130 °C	190	220	KP 2 K-30 ISO-L-XCCHB 2
Water-resistant, thermally-resilient EP-alloyed complex soap grease for rolling and plain bearings, for example taper roller or radial roller bearings on which impact loads and vibrations occur.						

High-temperature chain oils

According to operation temperature and required viscosity, various high-temperature chain oils are available.



Designation/ part number	Application/ properties	Operating temperature range
Divinol KF 270 (SN 26782)	High-temperature oils for all chain types. These oils are used for lubricating automatic drives. These products can also be conveyed with the help of a central lubrication system.	-30 to +220 °C
Divinol KF 260-E (SN 26382)		-25 to +260 °C
Divinol KF 100 (SN 27241)		-30 to +250 °C
Divinol KF 55 (SN 27790)		-30 to +260 °C

You can find more information at www.zeller-gmelin.de

Industrial oils

Divinol industrial oils are high-quality hydraulic, gearbox and machine oils that have been specially designed to fulfill the requirements of modern machines and maintain their performance and precision. Zeller+Gmelin ensures consistently high quality standards of the products manufactured. At the same time, we offer on-site consultation and laboratory monitoring as well as help with questions concerning disposal.

Designation/ part number	Application/ properties	Density/15 °C DIN 51737 kg/m ³	Viscosity/40 °C DIN 51562 mm ² /s (cSt)	Flash point DIN ISO 2592 °C	Pour point DIN ISO 3016 °C
Divinol hydraulic oils					
Divinol HLP ISO 10 (SN 20530)	High-pressure HLP hydraulic oils in accordance with DIN 51524 Part 2 with high ageing resistance, excellent corrosion protection and wear-protecting properties. For all hydraulic units that require the use of HLP-alloyed oils.	850	10	165	-30
Divinol HLP ISO 22 (SN 48850)		860	22	195	-21
Divinol HLP ISO 32 (SN 48861)		860	32	200	-18
Divinol HLP ISO 46 (SN 48870)		870	46	210	-15
Divinol HLP ISO 68 (SN 48880)		880	68	220	-15
Divinol HLP ISO 100 (SN 48890)		880	100	225	-15
Divinol industrial gearbox oils					
Divinol ICL ISO 32 (SN 27440)	Industrial high-pressure CLP gearbox oils in accordance with DIN 51517 Part 3 with additives to reduce friction and wear, excellent aging resistance, good temperature stability and protection against corrosion. Meets the requirements of AISE 224, AGMA 9005-E02 and David Brown S1.53.101 (E). For use in highly-stressed industrial gearboxes using circulating lubrication and dip bath gearboxes with spur pinions and bevel gear and worm gears.	880	32	180	-15
Divinol ICL ISO 46 (SN 27450)		880	46	180	-15
Divinol ICL ISO 68 (SN 25030)		880	68	180	-15
Divinol ICL ISO 100 (SN 25040)		890	100	210	-15
Divinol ICL ISO 150 (SN 24630)		890	150	210	-15
Divinol ICL ISO 220 (SN 25060)		900	220	210	-12
Divinol ICL ISO 320 (SN 25070)		900	320	210	-12
Divinol ICL ISO 460 (SN 21750)		900	460	210	-12
Divinol ICL ISO 680 (SN 90940)		900	680	210	-3

More information at www.zeller-gmelin.de





Zeller+Gmelin is a mid-sized mineral oil company with many years of experience in the lubricant sector. We offer a high-quality product range of lubricants:

Excerpt from the industrial lubricant product range

Multiboard®	Release agents for derived timber products
Zubora®	Water-miscible cooling lubricants
Divinol®	Lubricating greases
Divinol®	Guideway and slideway oils, hardening oils, adhesive oils, hydraulic oils, industrial gear oils, machine oils, commercial white oils, compressor oils, cylinder oils

Other products on request

Fluid management - comprehensive service from the Zeller+Gmelin group.

You can find our products in over 100 countries world-wide.



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