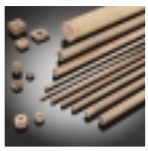


COMPRESSED LAMINATED WOOD

dehonit®

zertifiziert 9001 DIN EN ISO

The Material

5000 to press

Characteristic Features of dehonit® Compressed Laminated Wood.

The mechanical properties of dehonit® are comparable with plastics such as Grey Fibre (GFK), laminated plastic (Hgw, Hp) and Aluminium. The main features are:

- Low weight
- High compressive strength
- High modulus of elasticity in flexure
- Temperature stability
- Low coefficient of linear expansion
- Anti-static
- Low thermal conductivity
- High wear resistance
- Corrosion and chemical resistant
- Resistant to petrol, oil and lubricants
- Low coefficient of friction
- Good electrical insulation
- Water resistant

Machined ring and support beams

dehonit® Compressed Laminated Wood is manufactured to comply with DIN 7707 and consists of selected rotary cut beech veneers coated or impregnated with a synthetic resin. Following the application of the resin the veneers are assembled into a pack and pressed under high pressure and temperature to form a unique laminate material with excellent technical properties.

5-axis CNC - machining center

Machining of moulding plates

Our plant is equipped with modern 5 axis CNC machines to produce finished parts in accordance with customers drawings and specifications. We have an experienced team of technicians and engineers at our disposal to assist you in solving any technical and design issues. We have been producing and machining dehonit® for in excess of fifty years and our plant uses the latest production techniques. We are certified to ISO 9001:2000 to ensure high quality products and excellent workmanship. Our application engineers will be pleased to advise you on any technical or design problems that you may encounter. Please do not hesitate to contact us.

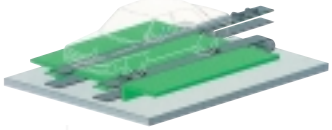
Innovation and Application

Typical fields of application for dehonit® Compressed Laminated Wood are

- Foundry moulding plates and patterns
- Tooling for forming sheet steel and aluminium in the aircraft and aerospace industry
- Machine beds for wood working machinery
- Conveyor belt supports
- Aeronautical applications
- Neutron shielding material for the nuclear industry
- Magnetic field shielding in fusion technology
- Underbody protection for race cars
- Thermal insulation in cryogenic applications
- Tank supports in the ship building industry
- Workpiece supports for robotic manufacturing in the automotive industry
- insulated fishplates
- Ballistic applications

dehonit® Compressed Laminated Wood can be sawn, planed, milled, drilled, sanded and turned on a lathe. The material can also be bonded together to form large blocks, polished, varnished and even tapped to accept machined threads.

Moulding plates in automatic moulding machines

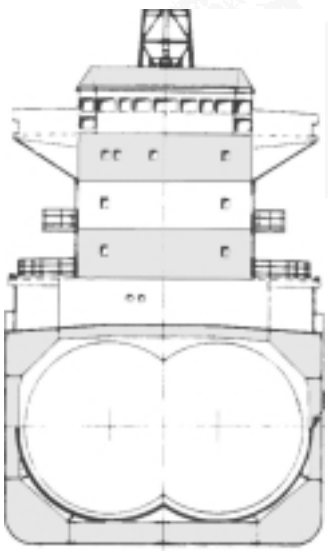


Conveyor belts in the automotive industry

Special fields of application: Propeller blade for aircraft

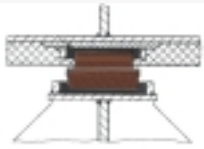
Tooling for forming metal parts in the aircraft industry

Work piece supports

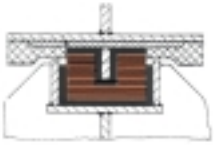


dehonit® in the LNG and LPG markets

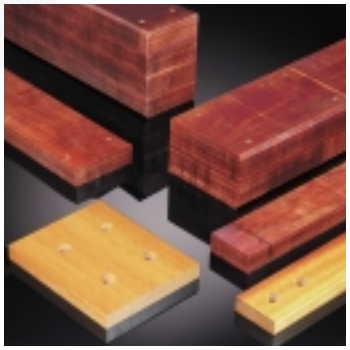
dehonit® has been successfully used in the cryogenic field for pipe supports and tank supports across the world. Our customers are consulting engineers, construction companies and shipbuilders.



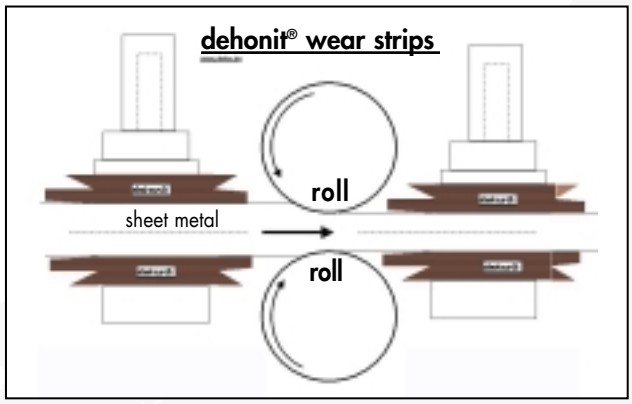
Moveable bearing



Fixed bearing



Quality and Reliability



dehonit® wear strips are used in sheet metal mills as guides reducing costs considerably as they last 10 to 30 times longer than conventional hardwood strips.

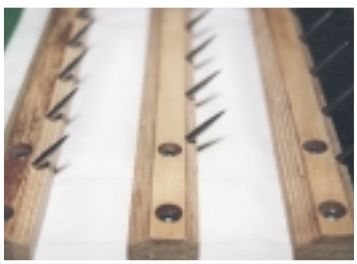
dehonit® wear strips ensure excellent, smooth and secure guiding of the sheet metal during the cold rolling process.

We manufacture fully machined wear strips in accordance with customers drawings and specifications.

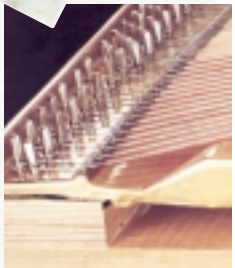
Our product range:

dehonit® semi finished products are available in the following sizes

Standard sizes:	1.000 x 1.000 mm
	2.000 x 1.000 mm
Standard thickness:	15 - 120 mm
Maximum sizes:	2.900 x 2.900 mm
	4.360 x 600 mm
	3.000 x 1.600 mm
	10.000 x 500 mm

The maximum size is dependant on the material grade.
Minimum thickness 6 mm. Special sizes are available on request.

dehonit® in sewage treatment plants

dehonit® for benches



dehonit® for pianos

dehonit® textile conveying belts

Technical data for dehonit® - Compressed Laminated Wood

Material grades for mechanical work

dehonit®	Quality	A 840	B 140	B 240	B 340	B840	B335-1	B 735-1	E 730-1
	DIN 7707	KP20 216	KP20 226	KP20 226	KP20 226	KP20 226	KP20 227	KP20 227	KP20 215
Direction of laminations									
Specific weight (g/cm³)	DIN 53 479	1,40	1,40	1,40	1,40	1,40	1,35	1,35	1,30
Flexural strength (N/mm²) ⊥ and II	DIN 53 452	240	180	174	170	155	150	140	180
Module of elasticity in flexure (N/mm²)	DIN 53 452	22.000	16.000	15.000	15.000	14.000	16.000	15.000	19.000
Compressive strength (N/mm²) ⊥	DIN 53 454	125	280	250	240	230	250	240	140
Impact resistance (kJ/m²) ⊥	DIN 53 453	61	41	40	40	36	26	28	30
Impact resistance with slot (kJ/m²) II	DIN 53 453	60	39	37	35	34	15	18	28
Impact resistance with slot (kJ/m²) ⊥	DIN 53 453	52	21	20	18	15	13	20	25
Tensile strength (N/mm²)	DIN 53 455	208	156	144	135	124	89	85	160
Thermal conductivity at 20°C (W/(m K))	DIN 52 612	0,25	0,25	0,25	0,25	0,25	0,30	0,30	0,30
Coefficient of linear expansion (1/K)	-	8×10^{-6}	8×10^{-6}	8×10^{-6}	8×10^{-6}	8×10^{-6}	8×10^{-6}	8×10^{-6}	7×10^{-6}
Water absorption %	DIN 53 495	5	2,5	3	4	5	0,7	0,7	1

The above values are mean test results.

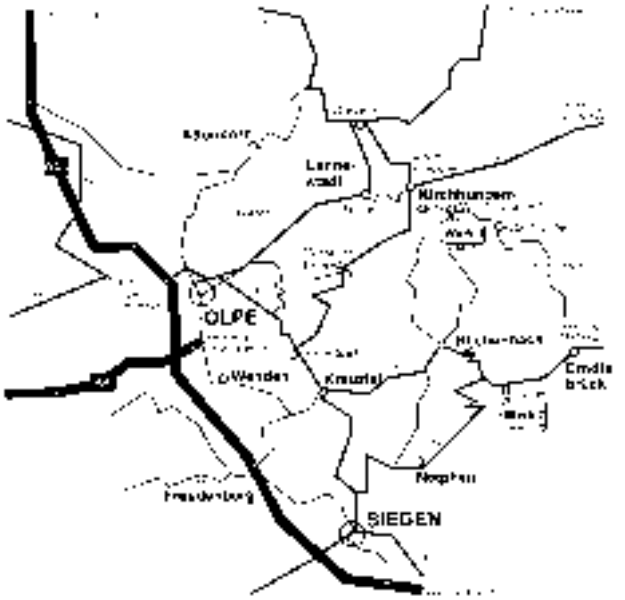
⊥ perpendicular to laminae
II parallel to laminae

Different material grades are available on request.

Temperature stability:
The temperature range of **dehonit®** Compressed Laminated Wood is from -200 to +90°C.
Stability increases at temperatures below zero.

Chemical stability:
dehonit® Compressed Laminated Wood is largely resistant to oil, weak acids and alkaline solutions.
Vacuum impregnated material is resistant to the permanent presence of moisture.

How to find us...



Plant 1: Administration / Production Plant
D-57399 Kirchhundem / Würdinghausen
Phone ++ 49 (0) 2723 7720 · Fax ++ 49 (0) 2723 772 152
www.dehonit.com · E-mail: dehonit@deho.de

Plant 2: dehoplast Production Plant
Kronprinzenstr. 2 · D-57271 Hilchenbach

Subsidiary Czech Republic
Dehonit-Falke s.r.o.
Chebska 2116
CZ 356 01 Sokolov
Tel. ++420 168 312194
Fax ++420 168 312161

Subsidiary Poland
Dehoplast Polska sp.z.o.o.
ul. Zeromskiego 117
PL-82500 Kwidzyn
Tel.: ++48 552794331
Fax: ++48 552794331

Subsidiary Great Britain
Permali Dehoplast Ltd.
Unit 4, Permali Park
Bristol Road
Gloucester GL1 5 SR
Tel. ++44 1452 4111607
Fax ++44 1452 4111617

Do you require further information on dehoplast products?
All you have to do is to copy this slip, mark with a cross the product range in question, enter your address and send this on our service fax number ++ 49 2723 772 152.

Compressed laminated wood
Kunstharzpressholz nach DIN 7707
Bois comprimé à résine synthétique
☐

Sliding rails and profiles
Gleitleisten und Profile
Glissières et profilés
☐

Accessories for conveyor systems
Zubehörteile für Förderanlagen
Accessoires pour convoyeurs
☐

Semi-finished products
Halbzeuge
Semi-produits
☐

Your adress/Contact person	Comments