

MORE FROM WOOD.



EGGER HDX TECHNICAL DATA

PROFESSIONAL

HEAVY DUTY MOISTURE RESISTANT
PARTICLE BOARD





EGGER HDX – Heavy duty moisture resistant particleboard

HDX is a range of heavy duty 38 mm particleboard tongue and grooved flooring panels specially developed for use in **mezzanine flooring** and **storage platform** applications. HDX is engineered and produced in the UK using carefully selected and prepared woodchips with our own formulated and manufactured resins.

All EGGER HDX boards meet the stringent demands of EN312:2003 and have been independently audited by WKI to meet CE guidelines. They are designed to assist the major suppliers in the industry meet their specialist needs, EGGER provides a pioneering range of products. HDX is manufactured under stringent quality control throughout production utilising modern technological processes. This gives each HDX board a **high degree of resistance to wear and tear**, as well as **excellent load transfer** across the tongue and groove long edges.

The unique specifically designed tongue and groove profile makes HDX a truly **reversible** board enabling the process of floor laying to be **quicker** and more **cost effective** by reducing the amount of cutting and the hassle that this can sometimes create.

Unique rounded profile provides



- Easier and quicker fitting
- Stronger joints than square profile
- The opportunity for wider load spans

HDX INDUSTRIAL FLOORING SOLUTIONS

HDX P5 (MOISTURE RESISTANT)

Manufactured in accordance with EN312-5:2003 HDX is the flooring solution for cold rooms and refrigerated warehousing, where high humidity exists or where there is a risk of a sudden increase in moisture, due to a generator breakdown or electrical failure, for example. HDX P5 offers exceptional resistance to moisture as it is produced using a melamine based resin making it ideally suited for **installation during winter times** or **new installations in unheated buildings** as it is resistant to high humidity and damp.



HDX P6

Manufactured by EGGER for more than 16 years, HDX P6 has become the premium heavy duty particle board specified by dedicated **mezzanine flooring** and **pallet racking** manufacturers throughout the UK. HDX P6 is the strongest and most durable heavy duty particle board available thanks to continuous development and the testament of its inclusion in thousands of working floors and platforms throughout the UK. Manufactured in accordance with **EN312-6:2003** it is suitable for heavy duty load bearing floors in a dry environment, such as for decking and **mezzanine floors, shelving** and **racking**.

EGGER HDX CLASS 'O'

- There are a number of ways to provide fire protection on the underside of mezzanine floors and pallet racking walkways. With increasing legislation regarding fire safety, specifiers need to be increasingly aware of the fire resistance of the board they are specifying
- A Class 'O' foil applied to the underside of HDX is an option which can provide valuable extra time for installations to be evacuated in the event of a fire breaking out. HDX Class 'O' can be applied to all HDX products
- HDX Class 'O' has been independently tested and certified by Warrington Fire Research
- All Class 'O' boards comply with BS 476: Part 7: 1997 and BS 476: Part 6: 1989

EGGER REFLECT

- Light reflection under mezzanine flooring and pallet racking supported walkways is desirable particularly where suspended ceilings are not present
- A white **semi-matt melamine finish** to one side can be specified (the other side being raw board unless otherwise specified), which in combination with **fluorescent lighting**, provides excellent light reflection and unlike some proprietary finishes and foils, is **easy to clean and maintain**, helping you to provide the very best impression upon hand over
- Subject to volume, HDX Reflect can be specified in combination with HDX Protect P6 or P5 enabling you to offer the best all round heavy duty flooring solution and meet the ever increasing market demands of both customers, and Health & Safety requirements

EGGER HDX PROTECT

- Manufactured using HDX coreboard and faced with a durable Kraft paper
- It is easy to clean and maintain and the finish provides extra abrasion and wear resistance
- Protects from slipping during wet and dry conditions supporting site safety
- Available as a stock item in HDX P6 and by special order in HDX P5

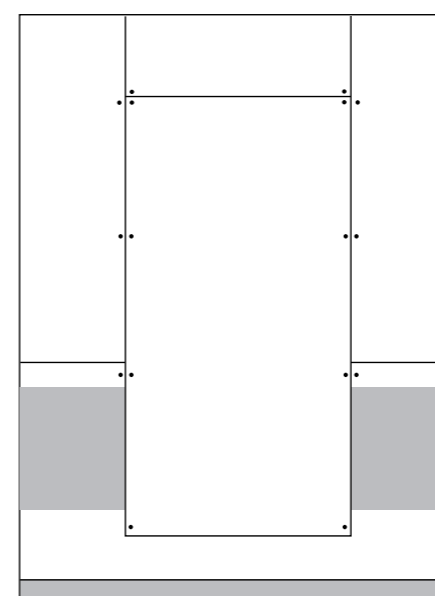
HDX FITTING GUIDE

DESIGN NOTES

As with all composite materials, particleboard, being a mix of wood fibres bonded with resin, is liable to creep under pressure from sustained applied loading. It is essential therefore in its use to differentiate between applications which will effect long, medium or short term loadings and to design and detail your specification accordingly. Annex K of BS 5268-2:2002 dictates the method of assessment of deflection under the various loading periods, and defines the limit of such deflections. Accordingly the loadings in the tables is limited by deflections of the board to span/200 under long term dead plus live loading.

FIXINGS

Fastenings to metal frame support flanges should be made as per diagram and not less than 25 mm from sheet edges, using approved fixings (subject to top width of supporting purlins/beams). The perimeter of the floor should be fastened to continuous supports. For raised storage platforms and other structures where medium or long term loading will apply, we recommend a staggered lap, multi-span arrangement. Short (600 mm) edges must always be located over a joist to maintain continuity of load bearing capacity. Floor fixings serve a number of roles.



They are required to secure and stabilise the supporting thin gauge steel members and to hold the board down when a heavy rolling load moves from span to span. A positive, reliable fixing into steel and an adequate coverage of fixings is imperative. It is essential for a sound fixing that all handrail standard base plates are fixed either through the flange of a supporting steel section or are provided with a washer plate.

FIXING OF HDX PROTECT WITH TEK SCREWS

We strongly recommend where practicable that fixing holes are predrilled and counter sunk to ensure that a clean flush finish is achieved, following the fixing of TEK screws. This is recommended only for HDX Protect and is not necessary for HDX P6

EXPANSION

Sheet edges should be butted together leaving a perimeter gap from the floor to the wall of 10/12 mm, for a floor width of 10 m. Where expansion gaps are provided all edges of the board should be supported.

CONCENTRATED LOADS

Adequate provision should be made for static and dynamic effects of concentrated loads (eg. wheel loads of powered trucks and racking systems). Spreader plates should be provided as necessary to transfer permanent loads to the supporting structure (eg. storage tanks, stanchions and guard rail posts). For storage platforms, 38 mm HDX is suitable for 1 tonne pallet trucks at maximum 700 mm joist centres, and for 1.5 tonne pallet trucks at maximum 525 mm joist centres.

ROUNDED GROOVE GOING INTO A SQUARE TONGUE

Take a rounded groove board and fit to the square tongue using EGGER D4 Adhesive to butt the joints together and to seal the space left between the rounded groove and square tongue, using D4 Adhesive will also help to provide a stronger joint.

ROUNDED TONGUE GOING INTO A SQUARE GROOVE

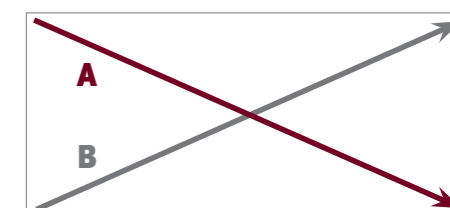
The only combination that doesn't work is the rounded tongue going into the square groove if this situation occurs, the rounded tongue can be removed from the board and butted up to the square groove using EGGER D4 Adhesive to fill in any gaps between the joints.

Alternatively for fitting rounded tongue to a square groove simply reverse the rounded profile board to butt up the two grooved sides using EGGER D4 Adhesive to seal the joint. The short ends of both boards are not profiled so joining these is not an issue.

MANUFACTURING TOLERANCES

Length tolerance	+/- 3 mm
Thickness tolerance	+/- 0.2 mm
Width tolerance	+/- 1 mm
Diagonal tolerance (Ex-factory)	+/- 3 mm

Procedure for measuring diagonal values



A-B = Diagonal Tolerance Value

PHYSICAL CHARACTERISTICS

SURFACE SPREAD OF FLAME

EGGER HDX has a reaction to fire Euroclass DFL-s1 rating. Enhanced values can be achieved by applying proprietary finishes.

LIQUIDS

Thickness swelling after 1 hour emersion is 2 %. Average moisture content for all boards ex factory is 6 - 8 %.

INSECT ATTACK

HDX is not put at risk from insects in temperate climates.

FUNGAL

HDX is not intended for use where wetting is likely to occur and therefore attack by wood destroying fungi remains unlikely. Humid conditions are characterised by a moisture content of the material corresponding to a temperature of 20 °C and a relative humidity of the surrounding air exceeding 85 % only a HDX is more suitable for use in areas where the moisture content is unlikely to exceed 18 % for prolonged periods.

WATER

HDX is a hydroscopic product and must not have excess water applied. A damp mop/cloth should be sufficient and may be used. Any spillage must be dried as soon as possible to prevent water ingress. Due to the fact that mezzanine floor profiles are not glued the use of excess water and jet/pressure washers is not recommended. dropping or dragging across the surface of the floor.

GENERAL MAINTENANCE AND CLEANING

For all HDX products a stiff brush/broom and damp mop/cloth should be sufficient to clean the product and may be used. For more 'stubborn' stains a mild detergent may be used.

HDX Protect has a durable paper impregnated with thermosetting resins facing which negates the requirement for proprietary finishes at installation. Discolour may occur due to general warehouse wear and tear.

Use of water based paints/solvents is not recommended. Epoxy based paints and resins may be used to seal floors. Cromadeck supply colour match paint for the grey impregnated paper named Egger Grey Ref.: NC6121 and Egger Protect Grey Ref.: NC6325 (matt) in the 400 ml aerosol format.

General care should be taken when moving heavy objects, avoiding damage caused by

STORAGE

EGGER HDX should be stored in a dry enclosed building, off the ground, preferably on at least 3 equidistant bearers to allow air to circulate.



DIMENSIONS AND STOCK AVAILABILITY

STOCK PRODUCT TYPE	STANDARD DIMENSIONS	PACK WEIGHT
HDX P6	2100 x 600 mm	1.3 tonnes
HDX P5/P6	2400 x 600 mm	1.5 tonnes
HDX P6 Protect	2400 x 600 mm	1.5 tonnes

All HDX board is 38mm thick and supplied tongue and grooved along 2 long edges. 38 boards per pack. Other board finishes and sizes are available on request subject to special order quantity and production capacity.

PHYSICAL PROPERTIES

Tested in accordance with EN312-5/6:2003 calculated in accordance with EN326-1 All results verified by WKI Quality Assessment dated 29.05.09

TYPE	METHOD	UNIT	P5			P6		
			MEAN	L5% OR U5%	REQUIREMENT	MEAN	L5% OR U5%	REQUIREMENT
Bending Strength	EN 310	N/mm ²	14.4	12.9	>10.0	16.0	14.5	>14.0
Modulus of elasticity	EN 310	N/mm ²	2340	2230	>1700	2770	2560	>2200
Internal bond	EN 319	N/mm ²	0.43	0.41	>0.30	0.46	0.39	>0.30
Thickness swelling	EN 317	%	6.6	8.8	<9.0	8.7	12.0	<13.0
Internal bond after cyclic	EN 321	N/mm ²	0.23	0.15	>0.15	N/A	N/A	N/A
Cyclic thickness swelling	EN 321	%	8.3	8.7	<9.0	N/A	N/A	N/A

SAFE LONG TERM POINT LOADINGS (KN)

SC1 - Service Class 1, for use in dry conditions, SC2 - Service Class 2, for use in humid conditions

SPAN (mm)	400	525	600	700	800
P6 HDX SC1	5.1	4.9	4.7	4.0	4.0
P5 HDX SC1	4.8	4.2	4.1	4.0	3.4
P5 HDX SC2	3.2	2.8	2.7	2.7	2.2

SAFE LONG TERM POINT LOADINGS (KG)

SPAN (mm)	400	525	600	700	800
P6 HDX SC1	510	490	470	400	400
P5 HDX SC1	480	420	410	400	340
P5 HDX SC2	320	280	270	270	220

SAFE LONG TERM POINT UDL'S (KN/M²) LIMITED BY DEFLECTION OF SPAN/200

SPAN (mm)	400	525	600	700	800
P6 HDX SC1	51.5	26.4	17.7	11.1	7.5
P5 HDX SC1	41.5	21.2	14.2	9.0	6.0
P5 HDX SC2	31.1	15.9	10.7	6.7	4.5

SAFE LONG TERM POINT UDL'S (KG/M²) LIMITED BY DEFLECTION OF SPAN/200

SPAN (mm)	400	525	600	700	800
P6 HDX SC1	5150	2640	1770	1110	750
P5 HDX SC1	4150	2120	1420	900	600
P5 HDX SC2	3110	1590	1070	670	450

Load tables have been revised utilising test data from Bath University completed in May 2009, and the latest modification factors for Long Term Loadings from Eurocode 5 and this supersedes all previous data.

Note: All point loadings based on a 50 x 50 concentrated load. Greater point loads may be achievable with profiles glued with EGGER D3 Adhesive.

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