



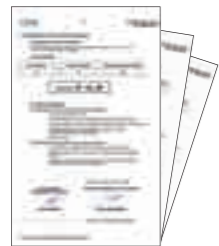
MEDIUM DENSITY FIBERBOARD (MDF)

TOPAKUSTIK and TOPPERFO products are manufactured from medium density fiberboard (MDF) as a standard. Thanks to the homogeneous structure, MDF is well suited for this application. MDF panels are produced from soft and hard wood fibers with added binding agents. Only panels meeting the international emission values E1 are processed. Panels are also available in No added Formaldehyde and FSC certified upon request.

OVERVIEW OF RAW MDF

Core Material designation	Fire category					Maximum expansion due to humidity increase for 1000 mm length in air conditioning
	DIN (CH)	EN 13501-1				
MDF E1-B2 Standard	B2 (4.3)	C-s1,d0	+	+	+	0.8 mm/1 m = 0.8 %
MDF E1-B1 fire retardant	B1 (5.3)	B-s1,d0	+	+	+	1 mm/1 m = 1 %
MDF EO-B2 no added formaldehyde	B2 (4.3)	C-s1,d0	+	+		0.8 mm/1m = 0.8 %
MDF EO-B2 FSC	B2 (4.3)	C-s1,d0	+	+		0.8 mm/1m = 0.8 %
MDF E1 moisture resistant V313	B2 (4.3)	C-s1,d0	+	+		1 mm/1m = 1 %
MDF E1/EO black, red, yellow...	B2 (4.3)	C-s1,d0	+	+		0.8 mm/1m = 0.8 %

FIRE STABILITY ACCORDING TO EUROCLASS EN 13501-1



TOPAKUSTIK and TOPPERFO have successfully passed extensive tests in accordance with Euroclass EN 13501-1 and are classified as follows in the flame-retardant specification: **B-S2,d0**

Table of Classification		
CH	DIN	EN
6.3	A1	A1-S1, d0
6.q3	A2	A2-S1, d0
5.3	B1	B-S2, d0
4.3	B2	C-S2, d0

as an indication

This code comprises the following value:

- B barely flammable or only to a minor extent
- S2 little or insignificant smoke emission
- d0 no flammable particles or drops in the event of a fire

The system is broken down into the following categories:

- A1 no contribution to the spread of fire
- A2 no significant contribution to the spread of fire
- B little or no contribution to the spread of fire
- C limited contribution to the spread of fire
- D contributor to the spread of fire
- E major contributor to the spread of fire

FOR EXAMPLE: BLACK MDF



Black or colored MDF core boards offer many interesting possibilities. They contrast well with both painted and wood veneer TOPAKUSTIK planks or panels.

When the core is the finish: All of the core panels are industrially manufactured. Color differences, even within one production batch, cannot be avoided. The application of a topcoat can make these differences even more apparent.



SPECIAL CORE PANELS

TOPAKUSTIK and TOPPERFO can also be manufactured from other standard core panels.

These can be broken down according to requirements with regard to

- Behavior in fire
- Appearance, e.g. special surface or panel design
- Special properties with regard to stability or moisture

OVERVIEW OF SPECIAL CORE PANELS

Core Material designation	Fire category DIN (CH)	Suitable for humid rooms				Basic sizes of core materials	Maximum expansion due to humidity increase for 1000 mm length in air conditioning
Cement	A2 (6.q3)	+	-		-	2600/3100 x 1250	0.8 mm/1m = 0.8 %
Particle board	B2 (4.3)	-				DIV	0.8 mm/1m = 0.8 %
Flakeboard OSB	B2 (4.3)	~	-		-	DIV	0.8 mm/1m = 0.8 %
Forex	B1 (5.3)	+	-		-	3050 x 1220	
Plywood	B2 (4.3)	~	+		-	DIV	0.8 mm/1m = 0.8 %
Blockboard	B2 (4.3)	~	-	~	-	DIV	

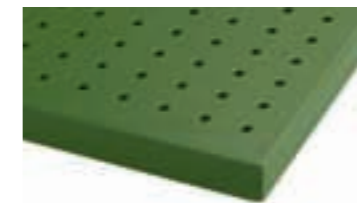
Legend:
 - unsuited
 + well suited
 upon request
 ~ conditionally suited, take differences in color in untreated panels into account
 DIV various further formats, please inquire.

Explanations:
 Wood veneer p. 20
 Paint p.21
 Melamine p.21

RESA'P®

RESAP® is a non-flammable panel (A1 – CH: 6q.3) made from natural gypsum and recycled cellulose fibres.

RESAP® is a registered trade mark of n'H Akustik + Design AG

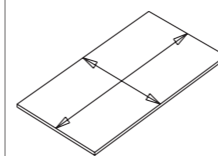


Painted panels: homogenous design – surface and edges can be finished for seamless transition. The RESAP-Plus version is recommended for a largely non-porous coat of paint.



Veneered panels: The light-brown/beige coloring of the panel is visible in the grooves or perforations and in combination with oak, beech or light veneers gives a high-quality appearance.

EXPANSION AND CONTRACTION OF THE CORE MATERIALS:



Wooden materials are hygroscopic and have a balancing effect on the relative humidity of the room. Changing room humidity also causes the shrinkage and expansion of wooden materials. In air conditioned rooms the panel and plank dimensions can change by +/- 1 mm per 1000 mm. In non air conditioned rooms this can increase to +/- 2mm per 1000 mm. Therefore panels and planks should be separated with joints of 3mm to 6mm depending on their size.

The installation should only be done when the normal operating humidity and temperature conditions are in place. After delivery and unloading the plastic transport covering should be removed and the panels or planks left to acclimatize for 3-4 days prior to starting installation.