Kronobuild®

Working with MDF

General

Kronospan MDF is well suited to machining, with tungsten carbide or diamond tipped tools recommended for high quality volume production.

Ideal MDF tooling angles differ slightly from those applied to wood machining - this is to promote cleaner finishes and longer tool life. Please refer to www.kronospan.co.uk for specific details for all the following sections.

Sawing, Routing and Profiling

Edge design is almost unlimited with Kronospan MDF, although excessively sharp angles should be avoided. Saw teeth and router cutters should be set at correct angles for MDF, and appropriate feed speeds used.

Cutter speeds are also critical. Too slow a speed will abrade the material rather than cut it, producing excessive heat and dust which quickly damage cutter tips. At too fast a speed the cut surface will be rough and show machining marks.

Sanding

Carbide abrasives are generally recommended – aluminium oxide types tend to dull quickly. Higher sanding speeds deliver best results. For example, belt sanding should be performed at speeds over 1500m/minute.

For most veneer and plastic foil applications, MDF generally requires no sanding. In the case of paint finishes, printed effects and very thin foils, a light 200 grit sanding may be advisable.

Correctly set tools and speeds should produce contours which require little or no sanding. If such finishing does become necessary, 150 – 240 grits can be used. Adequate dust extraction and personal protection equipment must always be provided.

Mechanical Fastenings

MDF accepts screws, staples and nails well. It should be noted that for maximum fastening strength and board stability, our guidelines on fastener positioning, pilot holes and screw types should be followed.

Dowels are also suited to use with MDF, although slightly greater hole diameters should be used – see www.kronospan.co.uk for details of all fastenings advice.

Adhesives

Most conventional adhesives used in the furniture and joinery trades are suitable for use with MDF.

Sufrace Finishes

Foils, veneers, melamine, painting, staining – Kronospan MDF offers a stable and smooth partner for many different finishes.

Environmental

- Minimum 70% FSC certified fibre
- All timber sourced in UK and Eire
- Chain of custody number TT-COC-1913
- On product labelling
- All Kronospan MDF products are low formaldehyde, meeting European E1 standard

For all technical details relating to working with Kronospan MDF, please visit www.kronospan.co.uk

HDF
Technical Data

Kronospan HDF is ideal for use in furniture applications, marquing and embossing

Kronospan HDF meets the following standards:

BS EN 622-1:2003 –GENERAL PROPERTIES OF HDF

PROPERTY	TEST METHOD	UNIT	SPECIFICATION
Thickness (sanded)	EN 324-1	mm	± 0.2
Length & width	EN 324-1	mm/m	± 2 (max ± 5mm)
Edge straightness tolerance	EN 324-2	mm/m	1.5
Squareness tolerance	EN 324-2	mm/m	2
Formaldehyde Class E1	EN 120	mg/100g	≤ 8
Tolerance on mean density within a board	EN 323	%	± 7%
Moisture Content	EN 322	%	4 to 11

KRONOSPAN HDF SPECIFIC PROPERTIES (EN 622-5:2009):

PROPERTY	TEST METHOD	UNIT	EN SPECIFICATION	KRONOSPAN VALUES
Internal Bond	EN 319	N/mm²	0.65	0.9
Density	EN 323	kg/m³	-	800
Swelling in thickness, 24hr	EN 317	%	2.5mm - 4 = 35 4 - 6mm = Max 30 6 - 9mm = 17	35 Max 30 17
Bending Strength	EN 310	N/mm²	23	45
MOE	EN 310	N/mm²	2700	4000

HDF Soft

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HDF Thin Board Light	**HDF V20**	**Release Production** 02-11-2010
Art.-Nr. unsanded	**Art.-Nr. sanded**	**Thickness** **>2,5-4mm**
Customer	**Customer Part Code**	

	Specific Value	*Standard*	*Unit*	*Target*	*Tolerance*
Product Specific Value	Raw Density	EN 323	[kg/m³]	***800***	***±10***
	Internal Bond	EN 319	[N/mm²]	***≥0,65***	
	Bending Strength	EN 310	[N/mm²]	**≥23**	
	Swelling 24h	EN 317	[%]	**≤50**	
	Formaldehyd E-1	EN 120	[mg/100g]	***≤8***	
	Formaldehyd E-LE	EN 120	[mg/100g]	**≤5**	
	Moisture Content	EN 332	[%]	***4-9***	
	Sand Content	ISO 3340	[%]	***≤0,05***	
	Length	EN 324-1	[mm/m]	**±2 max 5mm**	
	Width	EN 324-1	[mm/m]	**±2 max 5mm**	
	Straightness tolerance	EN 324-2	[mm/m]	**≤1,5**	
	Squareness tolerance	EN 324-2	[mm/m]	**≤2,0**	
	Thickness	EN 324-1	[mm]	***-0,2***	**±0,2**

Master Data Sheet HDF Standard

HDF Thin Board Standard	**HDF V20**	**Release Production** 02-11-2010
Art.-Nr. unsanded	**Art.-Nr. sanded**	**Thickness** **>2,5-4mm**
Customer	**Customer Part Code**	

	Specific Value	*Standard*	*Unit*	*Target*	*Tolerance*
Product Specific Value	Raw Density	EN 323	[kg/m³]	***830***	***±10***
	Internal Bond	EN 319	[N/mm²]	***≥0,65***	
	Surface Soundness	EN 311	[N/mm²]	**-**	
	Bending Strength	EN 310	[N/mm²]	**≥23**	
	Bending E-Module	EN 310	[N/mm²]	**-**	
	Swelling 24h	EN 317	[%]	**≤50**	
	Perforator	EN 120	[mg/100g]	***≤8***	
	Moisture Content	EN 332	[%]	***4-9***	
	Sand Content	ISO 3340	[%]	***≤0,05***	
	Length	EN 324-1	[mm/m]	**±2 max 5mm**	
	Width	EN 324-1	[mm/m]	**±2 max 5mm**	
	Straightness tolerance	EN 324-1	[mm/m]	**≤1,5**	
	Squareness tolerance	EN 324-1	[mm/m]	**≤2,0**	
	Thickness	EN 324-1	[mm]	***-0,2***	**±0,2**