

kraftplex[®]

das vielseitige holzblech / the versatile wooden sheeting



natürlich und vielfältig

wo ein umweltfreundliches, zu hundert prozent ökologisch abbaubares material gefragt ist und zudem biegsamkeit, geringes gewicht und leichte verarbeitung erforderlich sind, bietet sich unser vielseitiges holzblech kraftplex an. kraftplex ist somit sehr gut für das interieurdesign, die möbelherstellung und für das produkt-design geeignet:

- 3d verformungen ergeben sich gänzlich neue möglichkeiten der formgebung für designentwicklungen mit holzwerkstoffen.
- gelasert ist kraftplex optimal für anwendungen im innenausbau, möbel-, fahrzeug- und werkzeugausbau, produkt- und industriedesign.
- gestanzt lässt sich kraftplex problemlos im akustikbereich einsetzen. die lochplatten können auch beispielsweise als wand-, decken- oder heizkörperverkleidungen im laden- und innenausbau, als blenden für schrankfronten im möbelbau sowie als dekorationselemente oder raumteiler im messe- und akustikbau benutzt werden.

natural and versatile

wherever an environmental friendly, sustainable and completely biodegradable material combining flexibility, stability and lightness is required, our versatile wooden sheet kraftplex is the answer. Kraftplex is an optimal material for interior, furniture and product design :

- 3D shaping process opens new creation fields for designer with new forming possibilities of wooden materials.
- lasered kraftplex is ideal for applications in interior or product design or for the creation of tools in high tech industries or medical sectors.
- perforated kraftplex can be used as wall, ceiling or radiator covering in shop and interior design as well as decorative element or room divider in exhibition and acoustic projects.

praxisbeispiel / practical example

f-io skulpturenbaukasten

kombinieren sie die elemente des f-io skulpturenbaukastens auf beliebige weise. fügen sie neue, eigene elemente hinzu.

f-io ist im ergebnis offen, das ziel ist ihr eigenes. es gibt kein richtig oder falsch. der weg zu ihrer skulptur ist einzigartig.

f-io skulpture kit

combine the different elements of the f-io sculpture kit any way you like. add new elements of your choice.

the f-io concept is open to the creative process – you determine your goal. there is no right or wrong. you design your sculpture in a unique creative process.



kraftplex FO 0.8

- ▶ format / format 112,5 x 104 cm
- ▶ stärke / thickness 0,8 mm
- ▶ gewicht / weight 0,99 kg/m²



kraftplex FO 1.5

- ▶ format / format 112,5 x 104 cm
- ▶ stärke / thickness 1,5 mm
- ▶ gewicht / weight 1,77 kg/m²

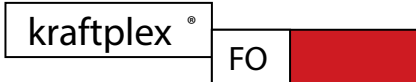


wellboard & kraftplex

- ▶ FSC-standards / FSC-standards
- ▶ DIN EN 71-3 zertifiziert / certificated
(keine giftstoffe / zero rate of toxic substance)




foto/photo: cord kahlert(4, 5), maria pfitzner (6), christian burmester (7)



art. nr.	6300/6310	
material	100% ungebleichte weichholzfäsern (kraftzellstoff) ohne verwendung von zusatzstoffen, kleber und bindemitteln	
rohmaterial	weichholz (FSC)	
breite	112,5 cm (p)	
länge	104 cm (md)	
fläche	1,17 m ²	
weitere formate	60 x 40 cm, auf anfrage bis 225 x 104 cm	
materialstärke	0,8 mm	1,5 mm
gewicht	0,99 kg/m ²	1,77 kg/m ²
dichte	1,10 g/cm ³	1,20 g/cm ³
toleranzen	materialstärke: +/- 7,5% länge und breite: < 2%	
verdichtbarkeit	4,8 %	7,6 %
zugfestigkeit (p)	122 N/mm ²	94 N/mm ²
zugfestigkeit (md)	82 N/mm ²	75 N/mm ²
dehnbarkeit	9 %	
feuchtigkeitsgehalt	< 8 % ab werk	
vergleichbare produkte	durch ähnliche dichteigenschaften wie aluminiumblech sowie die eigenschaft, elektrisch isolierend zu sein, stellt kraftplex eine gute alternative zu verbundstoffplatten, buntmetallen und kunststoffplatten dar	
struktur/oberfläche	leichte textilstruktur, keine uv-lichtbeständigkeit, keine wasserbeständigkeit	
farbton	helles braunbeige (~ral 1011)	
bearbeitung	kraftplex lässt sich wie andere werkstoffe sägen (auch mit co2-laser und water jet), stanzen und bohren, mit farben, lacken, ölen, wachsen und klebstoffen bearbeiten, mit dekorfolien kaschieren und bedrucken. kraftplex ist so flexibel, daß 3d-verformungen mittels tiefziehen oder kanten leicht möglich sind.	
brandschutz	b2, zur einhaltung von din 4102-b1 muss kraftplex imprägniert werden.	
anwendungen	möbel-, fahrzeug- und, werkzeugbau, medizintechnik, elektronische komponenten, produkt- und industrie-design	
verpackungseinheit	5 / 10 stk. und auf anfrage	

art. nr.	6300/6310	
material	100% unbleached virgin softwood fibers (fiber kraft pulp) without the use of adhesives, clay and binders.	
raw material	softwood (FSC)	
width	112,5 cm (p)	
length	104,0 cm (md)	
area	1,17 m ²	
available formats	60 x 40 cm, on request up to 225 x 104 cm	
thickness of material	0,8 mm	1,5 mm
weight	0,99 kg/m ²	1,77 kg/m ²
density	1,10 g/cm ³	1,20 g/cm ³
tolerances	thickness: +/- 7,5% length, width: < 2%	
compressibility	4,8 %	7,6 %
tensile strength (p)	122 N/mm ²	94 N/mm ²
tensile strength (md)	82 N/mm ²	75 N/mm ²
elongation	9 %	
moisture content	< 8 % ex works	
comparable products	through related density properties like aluminium sheet as well as the characteristic of being electrically isolating kraftplex is a good alternative to metal sheet, sheet of composite materials and plastic sheet.	
grain/surface	plane surface, not uv-resistant, not water resistant	
colour	light brown beige (~ral 1011)	
processing	corresponding to other wood based materials kraftplex can be cut (also by co2-laser and water jet) and perforated, treated with paints, varnishes, oils, waxes and adhesives and can be covered with decor film. kraftplex is so flexible that 3d-forming through drep drawing or chipping the edge are possible.	
fire prevention	b2, to adhere to din 4102-b1, wellboard has to be impregnated.	
applications	furniture and vehicle construction, tool manufacture, medical technology, electronic components, product design and industrial design	
packaging unit	5 / 10 pcs. and on request	

natur pur und modernität



„wir möchten kraftplex® gerne in weiteren branchen zum einsatz bringen und verstehen uns als förderer und vermittler nachhaltiger materialien für designer und architekten“, so franz betz, gründer von kraftplex®.

die materialien kraftplex und wellboard sprechen das umweltbewusstsein der gestalter, vom architekten zum produktenwickler an. sie erfüllen den kundenwunsch nach nachhaltigen produkten und lösungen.

hergestellt ohne verwendung von zusatzstoffen sind die beiden materialien umweltfreundlich, vollständig biologisch abbaubar und emissionsfrei. leicht zu verarbeiten und zu veredeln öffnen sie sowohl im möbel- und innenbau als auch in shop- und produktdesign unzählige neue individuelle anwendungsmöglichkeiten und unterstützen die kreativität der designer.

das ziel von nachhaltigem design ist es, eine verbindung zwischen den menschen und ihrer natürlichen umwelt durch die herstellung von produkten oder innenräumen aus wiederverwendbaren ressourcen zu schaffen. wir bieten das passende material zur verwirklichung ihrer umweltbewussten und modernen projekte.

nature and nothing else

our green materials kraftplex and wellboard are sustainable materials which can be easily transformed and are thus addressing human and environmental interests across many fields of the design practice, from architecture to product design.

the core of sustainable design is to relate people with the natural environment through the creation of products or interior architecture using renewable resources. designers and architects are length aware of it. it is now necessary that materials and production process follow the same path and support sustainable design in proposing materials able to cope with economical and ecological aspects.

our kraftplex and wellboard materials are the optimal materials to realise your sustainable and modern projects in this spirit.

kraftplex and wellboard consist of 100 % high-quality cellulose fibres from sustainably cultivated stocks of softwoods. they are manufactured in a very environmentally sound way and follows a unique production process using nothing but water, pressure and heat, no chemical additives, bleaches or binding agents being needed.

easy to transform and to upgrade they open new options in furniture production, interior- and shop design as well as product design.

KRAFTPLEX GUIDELINES

Kraftplex is an all-natural material composed entirely of wood fibers. Exposure to water or excessive humidity can result in discoloration or warping. Proper storage, handling, and preparation of kraftplex will help protect it from moisture, dust, and physical damage.

Acclimatizing

Allow kraftplex to acclimate at the installation site for at least 2 days prior to sealing and installing.

During installation, temperature and humidity at the site should be stable. The ideal humidity range is 40-60%. Where sealants will be used, observe the manufacturer's temperature recommendations.

Sealing

Kraftplex is not as dimensionally stable as surfacing materials that are impregnated with petrochemical resins. Because the only binder in Kraftplex is water, the material is susceptible to changes in humidity. Applying a sealer can help mediate the effects of humidity changes. Sealers also protect the surface of the material from contaminants. Many wood varnishing products, such as linseed oil, carnauba wax, acrylics and urethanes, are suitable for kraftplex. Wood stains and paint can be applied to Kraftplex as well. However, products that contain a high percentage of water may cause Kraftplex to warp.

At the end of its useful life, Kraftplex coated with a sealer that contains only natural ingredients can be composted or collected as "green waste".

The following recommendations apply to all varnishing and sealing products:

- Test all products on a piece of scrap material and check for changes in color, gloss level, etc.
- Prepare a work surface that is flat and free of water, dust and other contaminants.
- Seal ALL Kraftplex surfaces, including the front, back and edges. A consistent coat on all surfaces improves the stability of Kraftplex.
- Follow the sealer manufacturer's recommendations regarding application method. Spray coating tends to yield better results than brush application. Where uniformity and smoothness of the sealer are less critical, a brush or roller can be used.
- Allow sealer to dry completely before proceeding with installation. Follow the manufacturer's recommendations for drying time.

Cutting

Kraftplex is cut and shaped with conventional wood and metalworking tools.

Table saws, shaper tables, and drill presses tend to yield better results than hand-held tools. Jigsaws, hand planers, routers, drills, and sanders can also be used. Keep blades sharp to avoid burred or fuzzy edges.

Kraftplex can easily be lasered.

Fastening with Nails and Screws

Kraftplex can be fastened to a new or existing wall structure with nails or screws. Fastening can also be combined with gluing or capturing to minimize the possibility of visible warping.

Gluing and Laminating

Kraftplex can be glued or laminated directly to substrates such as plywood, gypsum board, and cementitious backing board. It can also be glued directly to studs, furring, or ribbing when it can be held in place until the adhesive has set.

There are two advantages to gluing Kraftplex to a substrate: 1) it minimizes movement due to humidity fluctuations and 2) it eliminates the need for visible fasteners. In some cases, combining gluing and fastening may be desirable.

To laminate Kraftplex to solid surfaces, follow the adhesive manufacturer instructions.

The following glues have been successfully used to laminate Kraftplex to drywall, wood studs and plywood.

- Wood glue (PVA)
- Dextrin (starch-based adhesive)
- Contact cement
- FRP (fiber reinforced panel) adhesives
- Construction adhesives

Kraftplex should be sealed before applying water-based glues or adhesives.

Always test adhesives on scrap material to ensure suitability.

After applying Kraftplex to the substrate, use a large rubber brayer or roller on the surface to help the sheet seat evenly in the adhesive.

Capturing and Floating

Kraftplex can float freely within a framework of decorative trim, much like a cabinet panel is captured within the frame of a door. Capturing can be combined with fastening or it can replace fastening altogether.

Like other wood materials, kraftplex expands and contracts with changes in temperature and humidity. Floating kraftplex within a framework of decorative trim allows dimensional changes to occur without restriction.

Allow an expansion gap of at least 1/4" at the sides and top of each kraftplex sheet.

Larger sheets expand and contract more than smaller sheets. Also allow for the possibility of slight expansion in sheet thickness.

Storage

Proper storage of kraftplex will help protect it from moisture, dust, and physical damage. Like other furnish-grade surfacing materials, kraftplex is susceptible to scratches and dents and should be handled with care.

- Keep kraftplex completely wrapped in its original packaging until needed.
- Avoid exposing kraftplex to extremely high or low humidity levels.
- Store flat in an indoor area.
- Cover with an opaque material, as prolonged exposure to direct sunlight can cause fading.
- Re-package any unused kraftplex as it was originally received.

Recycling and Disposal

Uncoated kraftplex is 100% biodegradable and can be composted or collected as "green waste" by local municipalities. Kraftplex coated with finishes containing only natural ingredients can also be composted or collected as green waste.

Uncoated kraftplex is also 100% recyclable. Kraftplex fibers are of very high quality and are compatible with paper and cardboard for recycling. However, special equipment may be needed to recycle Kraftplex due to its high strength and density. Both natural and synthetic coatings may be considered contaminants because they can interfere with the recycling process.