HGW 2082 phenolic bakelite woven cotton

HGW 2082 phenolic bakelite woven cotton sheets are made from a base cotton cloth layers impregnated with phenolic resin. The material can be used for applications up to 120°C.

A combination of temperature resistant phenolic resin and woven cotton fabric, give the material excellent wear resistance and weatherability.

Examples of typical usage are applications exposed to high mechanical loads such as bushings, guide rings for hydraulic, gliding bearings, structural materials exposed to weak acids at elevated temperatures, etc.

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Applications

Examples of typical usage are applications exposed to high mechanical loads in combination with low-friction properties such as bushings, guide rings for hydraulic, gliding bearings etc.

Chemical resistance to weak acids make the material suitable for mechanical construction applications and for use in structural component for, amongst others, machines for galvanic plating, synthetic fibre production, etc.

Properties

- Good chemical resistance and durability against water, oils, greases and weak acids.
- Very good weatherability and resistance against salt water.
- Very high wear resistance.
- Good heat resistance at 120°C while maintaining good mechanical properties.
- Good mechanical machining properties.

Composition

Woven cotton fabric base laminated in many layers with a phenolic resin, cured under high temperature and pressure in accordance with defined industrial standards into a rigid, mechanically strong laminate.

Colours

Brown

Norms

HGW 2082 phenolic bakelite woven cotton sheets are compliant with:

- DIN 7735 - HGW 2082
- IEC 60893 - PF CP 201

Dimensions

- Usual sheet size for thickness range 0.8–3 mm: 1220 x 1220 mm *
- Usual sheet size for thickness range 4–10 mm: 1220 x 2440 mm (can be divided into two sheets) *
- Usual sheet size for thickness range 12 – 100 mm: 1020 x 2040 mm (can be divided into two sheets) *
- Thickness range 0.5–100 mm

We supply HGW 2082 machined according to specification on request

Packaging

Standard dimensions sold individually

Usually non stock order item

* Sheet size may vary

Technical data

Properties	Value	Unit
Mechanical properties		
Density	1.4	g/cm^3
Flexural strength perpendicular at +20°C	100	N/mm^2
Flexural modulus of elasticity	7 000	N/mm^2
Compressive strength	250	N/mm^2
Impact strength parallel to laminations	8.8	kJ/m^2
Water absorption (thickness 3 mm)	249	mg
Thermal properties		
Temperature endurance (Temperatureindex)	120	T.I
Electrical properties		
Dielectric strength at 90°C in oil perpendicular to laminations (thickness 3 mm)	1.5	kV
Dielectric strength at 90°C in oil parallel to laminations	1	kV/25 mm
Creep voltage strength	100	CTI
Insulation resistance after immersion in water	1	MΩ

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How to contact BEVI
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