



## UPM S2

*UPM S2 is a fiberglass laminate consisting of polyester resin reinforced with fiberglass mat base or woven glass fabric for applications up to 155°C. Very good mechanical properties render the material ideal for applications where extreme mechanical stress occurs. UPM S2 is a good choice when the mechanical properties for GPO-3 are insufficient.*

- Compliant with DIN 7735 – HM 2472, EN60893/IEC893 – UPGM 205
- Good thermal properties
- Good electrical properties
- Very good mechanical properties
- Classified flame resistant

## PRODUCT INFORMATION

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### Applications

UPM S2 is suitable for a broad range of applications within the electrical and mechanical sectors and used extensively in the manufacture of spacers, mechanical barriers, electrical insulation components/spacers, etc., where the material is subjected to extreme mechanical stress. Generators and electric motors are typical application areas.

### Properties

- Very good mechanical properties
- Low moisture absorption
- Very high CTI value (Comparative Tracking Index)
- High heat resistance 155°C without major impact on the mechanical properties
- Classified flame resistant
- High chemical resistance
- Resistant against most impregnation varnishes
- Good dielectric properties
- Highly suitable for processed parts

### Composition

- Fiberglass mat base or woven glass fabric compressed and cured under high pressure and temperature to comply with defined industry standards.

### Colours

- Usually yellow/white/, but can occur in red and white

### Dimensions

- Standard size sheets 1120 x 2340 mm
- Thickness range 5 - 50 mm
- We deliver machined UPM S2 according to specification on request

### Packaging

- Sold individually

*Product information for which Carbex bears no responsibility is provided by the manufacturer.*





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### Technical data

Glasfiber Polyester UPM S2 complies with norms: DIN 7735 - HM 2472,  
EN60893/IEC893 - UPGM 205

#### Properties

<b>Mechanical</b>	<b>Value</b>	<b>Unit</b>
Density	1.9	g/cm <sup>3</sup>
Flexural strength perpendicular	350	N/mm <sup>2</sup>
Flexural modulus of elasticity	20 000	N/mm <sup>2</sup>
Compressive strength perpendicular	480	N/mm <sup>2</sup>
Tensile strength	200	N/mm <sup>2</sup>
Impact strength parallel with laminations	150	kJ/m <sup>2</sup>
Water absorption	<0.5	%
<b>Thermal</b>		
Temperature endurance (Temperature index)	155	T.I
Working temperature class F	155	°C
Flame resistance	VO/>5mm	UL 94
<b>Electrical</b>		
Dielectric strength at 90°C in oil perpendicular	12	kV/mm
Dielectric strength at 90°C in oil parallel	75	kV/25 mm
Creep voltage strength	600	CTI

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