

## TECANAT GF 20 sw

Chemical Designation :	Polycarbonat
DIN-Abbreviation:	PC GF 20
Colours, fillers:	black, 20% glasfibres

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### Main features

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|---------------------------------------|---------------------------------|
| very good heat deformation resistance | rigid                           |
| easily welded and bonded              | very high dimensional stability |
| electrically insulating               |                                 |
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### Preferred Fields

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|--|------------------------|
| mechanical engineering                   | automotive engineering |
| transport and conveyor technology        | textile machinery      |
| packaging and paper processing machinery | electrical engineering |
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### Applications

Diverse machine parts, housing parts, insulators, plugs, settings, support rings, wiper blades

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### Properties

Mechanical	dry / moist		standard
Tensile strength at yield		MPa	
Elongation at yield		%	
Tensile strength at break	100	MPa	DIN EN ISO 527
Elongation at break	3,2	%	DIN EN ISO 527

Modulus of elasticity in tension	5600	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	85		DIN 53 505 (Shore Härte D)
Impact strength 23° C (Charpy)	45	KJ/m <sup>2</sup>	DIN EN ISO 179 (Charpy)
Creep rupture strength after 1000 h with static load		MPa	
Time yield limit for 1% elongation after 1000 h		MPa	
Co-efficient of friction p = 0,05 N/mm <sup>2</sup> v=0,6 m/s on steel, hardened and ground			
Wear p = 0,05 N/mm <sup>2</sup> v=0,6 m/s on steel, hardened and ground		μm/km	

<b>Thermal</b>	<b>dry / moist</b>		<b>standard</b>
Crystalline melting point		°C	
Glass transition temperature	148	°C	DIN 53 765
Heat distortion temperature HDT, Method A		°C	
Heat distortion temperature HDT, Method B		°C	
Max. service temperature			
short term	140	°C	
long term	120	°C	
Thermal conductivity (23° C)		W/(K·m)	
Specific heat (23° C)		J/g.K	
Coefficient of thermal expansion (23-55°C)		10 <sup>-5</sup> /K	

## Properties

<b>Electrical</b>	<b>dry / moist</b>		<b>standard</b>
Dielectric constant (10 <sup>6</sup> Hz)			
Dielectric loss factor (10 <sup>6</sup> Hz)			
Specific volume resistance		*cm	
Surface resistance			
Dielectric strength		kV/mm	
Resistance to tracking			
<b>Miscellaneous</b>	<b>dry / moist</b>		<b>standard</b>
Density	1,33	g/cm <sup>3</sup>	DIN 53 479
Moisture absorption (23°C/50RH)	0,12	%	DIN EN ISO 62
Water absorption to equilibrium	0,32	%	DIN EN ISO 62
Flammability acc. to UL standard 94			

(1) Testing of semi-finished products

The above information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of chemical resistance, of certain properties and the suitability of our products and their applications. Our products are not destined for use in medical and dental implants. Existing commercial patents must be observed. Unless otherwise stated, these values represent averages taken from injection moulding samples, dry as moulded. We reserve the right to make technical alterations.

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