



## S-Ply<sup>®</sup> carbon

Matrix: epoxy resin  
Reinforcement: parallel oriented, non-woven carbon fibre  
Temperature range: -60°C – +120°C  
Thickness range: 0.75 – 20.0 mm

### Material data

Property at room temperature	Standard spring configuration (see sketch)
Modulus of elasticity [MPa]	100,000 ± 5%
BARCOL-hardness	70 ± 5%
Max. bending stress [MPa] (Tensile-compressive-fatigue strength)	315
Coefficient of friction S-Ply-steel	0.17μ
Coefficient of friction S-Ply-aluminium	0.18μ
Poisson number	0.074

### Chemical properties

Chemicals	Resistance
Cold water	yes
Hot water	medium
Acid (weak)	medium
Acid (strong)	no
Acid (oxidizing)	no
Hydrofluoric acid	no
Lyes (weak)	yes
Lyes (strong)	medium
Solution of inorganic salts	yes
Halogens (dry)	yes
Aliphatic hydrocarbons	yes
Aromatic hydrocarbons	yes
Chlorinated hydrocarbons	medium
Alcohols	medium
Ester	medium
Ketones	medium
Ether	yes
Organic acids	yes
Fuels	yes
Mineral oils	yes
Fatty oils	yes
Turpentine	medium



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### Other properties

	Typical measured value
Density [g/cm <sup>3</sup> ]	1.6
Colour	black

### Sketch:

#### Spring configuration

