

**TORSTRAN[®] CNT M20/STDM1-PT6 AND CNT M20/STDM1-PT6 ICP
COATED CARBON NANOTUBE SHEET AND TAPE****Product overview**

Torstran™ is a light-weight and tough ICP coated grade of carbon nanotube material which has exceptional EMI attenuation and EMI Gasket forming properties and is available in sheet and tape form. There are two grades available CNTM20/STDM1-PT6 and CNTM60/STDM1-PT6 which have area densities of 30gm⁻³ and 95gm⁻³ respectively. Torstran grades with PT6 suffix designations are coated with a conductive polymer which enhances electrical performance and also improves some processing operations such as mechanical cutting and folding.

The very low area density of Torstran allows non-metallic enclosures e.g. polymer moulded or composite construction to be shielded against RF/EMI to a very high level with an extremely low weight penalty. Torstran also has excellent potential for shielding cables and wiring looms where weight reduction and flexibility are key requirements.

Torstran also exhibits excellent low impedance connection properties allowing it to be directly terminated when used as a shield or serving as a gasket in small-scale high-performance applications such as waveguide flanges and RF connectors.

Features

- Combines high RF/EMI shielding performance with very low weight per unit area (area density)
- High electrical conductivity
- Flexible / formable
- Wide operating temperature range from cryogenic to +150°C
- High thermal shock resistance
- Resistant to radiation
- Resistant to fuels, oils and hydrocarbon solvents

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Technical Data	
Colour	Black
Density	0.5 gcm ⁻³
Thickness (CNTM20/STDM1 grade)	0.05mm
Thickness (CNTM60/STDM1 grade)	0.15mm
Tensile Strength	160 MPa
Tear strength	10 Nmm ⁻¹
Elongation to break	15%
Electrical conductivity M20 GRADE (planar)	156000 Sm ⁻¹
Electrical conductivity M60 GRADE (planar)	79000 Sm ⁻¹
Electrical resistance M20 GRADE (surface)	0.13 Ω□ ⁻¹
Electrical resistance M60 GRADE (surface)	0.08 Ω□ ⁻¹
Thermal conductivity (planar)	80 Wm ⁻¹ K ⁻¹
Shielding effectiveness (100kHz – 40GHz)	80+ dB

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