



ETM

Heat shrink markers

The ETM-M2 printable heat shrink tubing is manufactured from flame retardant, self-extinguishing, flexible polyolefin tubing optimised for thermal transfer printing. Suitable for high performance wire identification found in aerospace, military and defence applications, and is also widely used within electrical contracting projects. The product is UL 224 VW-1 recognised, CSA certified and complies to AMS-DTL-23053/5 Class 1&3.

Physical

Properties	Test Method	Typical Value
Tensile strength	ASTM D 638	≥14 N/mm ²
Elongation at break	ASTM D 638	≥400%
Longitudinal change	SAE-AMS-DTL-23053	0% - -2%
Specific gravity	ASTM D 792	1.34g/cm ³
Secant modulus	ASTM D 882	65 Mpa

Electrical

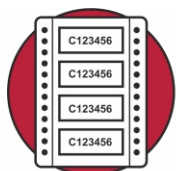
Properties	Test Method	Typical Value
Dielectric strength	UL 224	15 kV/mm
Volume resistivity	ASTM D 876	3.1 x 10 ¹⁴ Ω cm
Voltage rating	UL 224	600V
Dielectric voltage resistance (2.5kV x 60s)	UL 224	Pass. No breakdown.

Chemical

Properties	Test Method	Typical Value
Fungus resistance	ASTM G 21	Pass. No growth.
Fluid resistance (after 24hrs immersion at 23°C)	SAE-AMS-DTL-23053	7.25 - 14 MPa

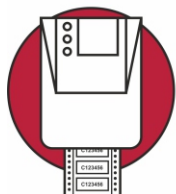
Thermal

Properties	Test Method	Typical Value
Heat shock (4hrs at 250°C)	SAE-AMS-DTL-23053	Pass. (no dripping, cracking or flowing)
Elongation after heat ageing (4hrs at 158°C)	SAE-AMS-DTL-23053	≥400%
Copper corrosion (168hrs at 158°C)	SAE-AMS-DTL-23053	Pass
Stability against copper (168hrs at 158°C)	SAE-AMS-DTL-23053	Pass
Low temperature flexibility (4hrs at -55°C)	SAE-AMS-DTL-23053	No cracking
Flammability	UL 224	VW-1 pass



Pre-Print

Send us your label information and we will print the product and deliver to site ready to go.



Print-on-Site

For convenience we will supply the printer, software and training to site to print the labels yourself.

Technical Datasheet



Standard Colours

Yellow and white.

Other colours upon request.

Material

Radiation cross linked polyolefin.
Shrink ratio 3:1

Operating temperature

-40°C up to +135°C.

Minimum shrink temperature

+85°C.

Specifications

Mark permanence

SAE AS81531:1998, point 4.6.2.

Chemical and solvent resistance

MIL-STD-202G method 215J.

Standard

UL 224 125°C 600V VW-1
(recognised file E203950)

CSA 125°C 600V Certified
(certified file 220127)

SAE-AMS-DTL-23053/5 Class 1&3

Storage

Store in original packaging.
Recommended storage environment is +10°C to +25°C and 45-55% relative humidity.

Printing method

Thermal transfer

Packaging

Supplied on printer ready reels.

Inner cores are sized to allow loading inside most printers.

Edge perforations as standard to allow easy removal of markers.



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