

**CYG-MT HALOGEN FREE HEAT-SHRINKABLE MARKING TUBING****Material:** radiation cross-linked polyolefin**Shrink ratio:** 2:1 / 3:1**Features:**

- ◆ UL224 and halogen-free compliance
- ◆ Label performance meets AS23053/5 requirements
- ◆ Meet EN45545-2 HL3 R22 rail application standard
- ◆ Diversified packaging for different requirements
- ◆ Printing available with both dot matrix and thermal transfer printer
- ◆ Printing available on both sides with strong readability
- ◆ Standard colors are white and yellow, other colors are also available
- ◆ Anti-abrasion, permanent marking

**Application:**

CYG-MT is designed to meet the high-performance identification requirements for cables, fixtures and equipments. The main material is cross-linked polyolefin, which has excellent abrasion resistant and flame retardant properties. Application temperature range is from  $-55^{\circ}\text{C}$  to  $135^{\circ}\text{C}$ , and it is widely used for the cable identification of electric equipment.

It has excellent marking performance after abrasion and exposing to extreme solvents or military oil, Which also conforms to SAE-AS-5942 and MIL-STD-202G standard. With good flame retardant properties and insulation, it is widely used in commercial, industrial, military, automotive and aerospace fields.

**Specifications**

Items	Test Methods	Specifications
Tensile strength	AS23053 5.12 & ASTM D638	$\geq 10.3\text{MPa}$
Elongation at break	AS23053 5.13 & ASTM D638	$\geq 200\%$
Flexibility at low temperature	AS23053 5.7 & ASTM D746	$-55^{\circ}\text{C} \pm 1^{\circ}\text{C}$ , 4h, no cracking
Heat shock	AS23053 5.8	$225^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , 4h, no cracking, no dripping, no flowing
Aging performance	AS23053 5.9 & ASTM D2671	$175^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 168h, no visible damage
Tensile strength after aging	ASTM D638	$\geq 6.9\text{Mpa}$ , $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Elongation at break after aging	ASTM D638	$\geq 100\%$ , $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Color stability	AS23053 5.15	$175^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 24h, pass
Dielectric strength	ASTM D2671	$\geq 19.7\text{KV/mm}$ , $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Volume resistance	ASTM D876	$\geq 1.0 \times 10^{14} \Omega \cdot \text{cm}$ , 500V(DC), 60s
Flammability	AS23053 5.14 & ASTM D2671	Automatically extinguish within 60s, no more than 25% of the iconic flags are damaged or burnt, no dripping or large area falling
Solvent resistance	AS23053 5.11	No visible damage
Printing durability	SAE-AS-5942	Erase 20 times, the printing is clearly visible
Solvent resistance of printing	MIL-STD-202G Method 215K	Erase 10 times, the printing is clearly visible

### Size

### CYG-MT Continuous Type

Size	As Supplied(mm)				After Recovery (mm)	Packing Length (meter/roll)
	Inside Diameter	Wall-thickness	Flat Width	Flat Thickness	Inside Diameter	
<b>Continuous type CYG-MT (shrink ratio 2:1)</b>						
Φ2.4	≥2.4	0.15±0.05	5.1±0.4	0.30±0.10	≤1.17	30M
Φ3.2	≥3.2	0.15±0.05	6.7±0.4	0.30±0.10	≤1.58	30M
Φ4.8	≥4.8	0.15±0.05	9.1±0.5	0.30±0.10	≤2.36	30M
Φ6.4	≥6.4	0.15±0.05	11.5±0.5	0.30±0.10	≤3.18	30M
Φ9.5	≥9.5	0.20±0.05	16.5±0.5	0.40±0.10	≤4.75	30M
Φ12.7	≥12.7	0.20±0.05	21.7±0.5	0.40±0.10	≤6.35	30M
Φ19.1	≥19.1	0.20±0.05	32.2±0.8	0.40±0.10	≤9.53	30M
Φ25.4	≥25.4	0.20±0.05	42.0±0.8	0.40±0.10	≤12.7	30M
Φ38.1	≥38.1	0.20±0.05	62.3±0.8	0.40±0.10	≤19.05	30M
Φ50.8	≥50.8	0.25±0.05	82.0±0.8	0.50±0.10	≤25.4	30M
<b>Continuous type CYG-MT (shrink ratio 3:1)</b>						
Φ2.4	≥2.4	0.20±0.05	4.9±0.5	0.40±0.10	≤0.79	30M
Φ3.2	≥3.2	0.20±0.05	6.1±0.5	0.40±0.10	≤1.07	30M
Φ4.8	≥4.8	0.20±0.05	8.4±0.5	0.40±0.10	≤1.57	30M
Φ6.4	≥6.4	0.20±0.05	11.2±0.8	0.40±0.10	≤2.11	30M
Φ9.5	≥9.5	0.20±0.05	16.8±0.8	0.40±0.10	≤3.18	30M
Φ12.7	≥12.7	0.20±0.05	21.8±1.0	0.40±0.10	≤4.22	30M
Φ19.1	≥19.1	0.30±0.06	33.4±1.0	0.60±0.15	≤6.35	30M
Φ25.4	≥25.4	0.30±0.06	42.4±1.5	0.60±0.15	≤8.46	30M
Φ38.1	≥38.1	0.30±0.06	63.7±1.5	0.60±0.15	≤12.7	30M
Φ50.8	≥50.8	0.30±0.06	82.2±1.5	0.60±0.15	≤16.9	30M

Other sizes and colors are available upon special order.

### Printer information:

CHANGYUAN printer:

CYG-P-D1 (thermal transfer/dual printing)

CYG-P-S1 (thermal transfer/single printing)

CHANGYUAN Ribbon:

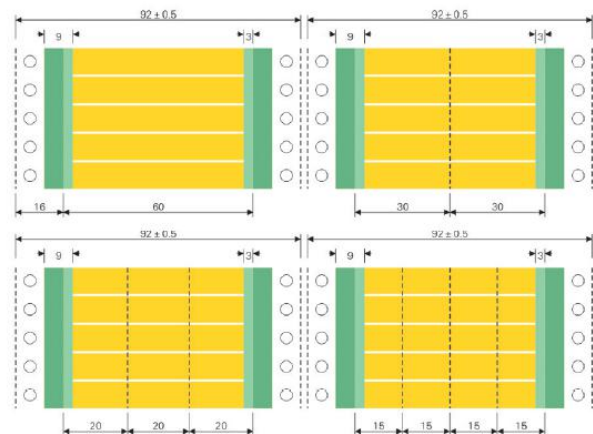
CYG-R-A-001 (excellent chemical/friction durability)

CYG-R-B-001 (good abrasion resistant)

CYG-R-B-002 (good abrasion resistant)

CYG-R-C-001 (regular type)

CYG-R-C-002 (regular type)



**Size**

**CYG-MT Ladder Type**

Size	As Supplied(mm)				After Recovery (mm)	Packing Length (PCS/roll)
	Inside Diameter	Wall-thickness	Flat Width	Flat Thickness	Inside Diameter	
<b>Ladder type CYG-MT (shrink ratio 2:1) perforation is available</b>						
Φ2.4	≥2.4	0.15±0.05	5.1±0.4	0.30±0.10	≤1.17	2000PCS
Φ3.2	≥3.2	0.15±0.05	6.7±0.4	0.30±0.10	≤1.58	2000PCS
Φ4.8	≥4.8	0.15±0.05	9.1±0.5	0.30±0.10	≤2.36	2000PCS
Φ6.4	≥6.4	0.15±0.05	11.5±0.5	0.30±0.10	≤3.18	1500PCS
Φ9.5	≥9.5	0.20±0.05	16.5±0.5	0.40±0.10	≤4.75	1500PCS
Φ12.7	≥12.7	0.20±0.05	21.7±0.5	0.40±0.10	≤6.35	500PCS
Φ19.1	≥19.1	0.20±0.05	32.2±0.8	0.40±0.10	≤9.53	500PCS
Φ25.4	≥25.4	0.20±0.05	42.0±0.8	0.40±0.10	≤12.7	500PCS
Φ38.1	≥38.1	0.20±0.05	62.3±0.8	0.40±0.10	≤19.05	500PCS
Φ50.8	≥50.8	0.25±0.05	82.0±0.8	0.50±0.10	≤25.4	250PCS
<b>Ladder type CYG-MT (shrink ratio 3:1) perforation is available</b>						
Φ2.4	≥2.4	0.20±0.05	4.9±0.5	0.40±0.10	≤0.79	2000PCS
Φ3.2	≥3.2	0.20±0.05	6.1±0.5	0.40±0.10	≤1.07	2000PCS
Φ4.8	≥4.8	0.20±0.05	8.4±0.5	0.40±0.10	≤1.57	2000PCS
Φ6.4	≥6.4	0.20±0.05	11.2±0.8	0.40±0.10	≤2.11	1500PCS
Φ9.5	≥9.5	0.20±0.05	16.8±0.8	0.40±0.10	≤3.18	1500PCS
Φ12.7	≥12.7	0.20±0.05	21.8±1.0	0.40±0.10	≤4.22	500PCS
Φ19.1	≥19.1	0.30±0.06	33.4±1.0	0.60±0.15	≤6.35	500PCS
Φ25.4	≥25.4	0.30±0.06	42.4±1.5	0.60±0.15	≤8.46	500PCS
Φ38.1	≥38.1	0.30±0.06	63.7±1.5	0.60±0.15	≤12.7	500PCS
Φ50.8	≥50.8	0.30±0.06	82.2±1.5	0.60±0.15	≤16.9	250PCS

**Other sizes and colors are available upon special order.**