

**Technical Data Sheet****Panduit GMH12 Film Lamination**

This specification is intended to outline the physical and chemical properties of *PANDUIT's* GMH12 material and include the following printable material identifier:

Printable Material Suffixes		
Y6C		

**PRODUCT SPECIFICATIONS:**

Description:	Material is RoHS compliant (European Union directive 2002/95/EC). GMH12 consists of a top coated 5.0 mil polyester film laminated to a 4.0 mil polyolefin film. This material is halogen free.
Print Methods:	This material is recommended for thermal transfer printing.
Standard Colors:	Yellow
Thickness:	9.5 +/- 0.5 mils
Service Temperature Range:	-40°F to 180°F (-40°C to 82°C)
Minimum Application Temperature:	-10°F (-23°C)
Storage Conditions:	Store at 70°F (21°C) and 50% Relative Humidity. For cassette products do not exceed 95°F.

**PROPERTIES:****PERFORMANCE:**

Tensile Strength:	MD: 110 +/- 11.0 lbs./inch width (PSTC-131) TD: 150 +/- 15.0 lbs./inch width (PSTC-131)
Elongation:	MD: 300% +/- 10% (PSTC-131) TD: 220% +/- 10% (PSTC-131)
UV Resistance:	*3000 hours no visual change observed (ASTM G154).
Tear-Propagation Resistance:	MD: 230 gms (8.1 oz) (ASTM D1938) TD: 295 gms (10.4 oz) (ASTM D1938)
Humidity Resistance:	30 days at 100°F(37°C) and 95% R.H, no visible change observed
Abrasion Resistance:	CS-10 wheels/250 gm wt/50 cycles, no visible change observed
Long Term High Service Temp:	30 days at 180°F (82°C), no visible change observed. Significant browning of the material observed when exposed for 4 hours at 250°C (482°F)
Long Term Low Service Temp:	30 days at -40°F (-40°C), no visible change observed.
Air Handling Spaces:	Meets the outgassing requirements of ASTM E-595 suitable for use in air handling spaces.

\*3000 hours equates to 5 years of assimilated outdoor UV exposure.

**Technical Data Sheet****CHEMICAL/SOLVENT RESISTANCE:**

The testing was conducted at room temperature. Samples were thermal transfer printed on the Panduit LS8 printer. Separate sets were conditioned for 24 hours before being immersed in the following solvents for a period of 1 hour and 24 hours. After the samples were removed from the immersed solvents, they were rubbed 10 times with a lint free gauze. Visual observations were noted for any smear or loss of legibility.

**1 Hour Immersion**

Chemical/Solvent	Visual Observation
Jet Fuel	No change
Gasoline	No change
Methyl Ethyl Ketone	Loss of print legibility
1:1:1 TCE	No change
Trichloroethylene	Loss of print legibility
409 Cleaner	No change
Alpha Flux 200L	No change
Toluene	Loss of print Legibility
3% Alconox	No change
10% Sodium Hydroxide	No change
10% Sulfuric Acid	No change
Degreaser	No change
30% Hydrochloric Acid	No change
30% Sodium Carbonate	No change

**24 Hour Immersion**

Chemical/Solvent	Visual Observation
Isopropyl Alcohol	No change
Water 150F	No change
Salt Water	No change
SAE 30 Motor Oil	No change
Hydraulic Fluid	No change
Skydrol	Loss of print density
Methanol/Water	No change
Ethylene Glycol	No change
ASTM #3 Oil	No change

MIL-STD-202G, Method 215K, Solution A, C and D:

3 cycles of three minute immersions in specified fluids followed by toothbrush rub after each immersion. Print remains legible in all three fluids.

**LIMITED WARRANTY**

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