

This technical data refers to the following Lighthouse products:

3M Silver/Grey Polyester – 7872EC

Lighthouse Item No. CPMSF51 & CPMSF251

Description

Gloss finished polyester film coated with a high tack permanent acrylic adhesive.

Applications

This 3M material provides a platinum finished label with excellent adhesion on a variety of surfaces including; high and low energy surface plastics, metals, painted metal and powder coatings. This UL and cUL recognised product offers good chemical and temperature resistance up to 149°C. Typical applications include; product identification, rating plates, asset labelling, warning, instruction and service labels.

Technical Information

Thickness	Film Adhesive	51 microns 46 microns
Service Temperature		-40°C to 150°C -40°C for 10 Days no significant visual change in appearance or adhesion 150°C for 24 hours no significant visual change 0.4% MD shrinkage. 0.6%CD shrinkage
Minimum Application Temperature		+10°C
Humidity Resistance 24 hours at 38°C (100°F) and 100% humidity		No significant change in appearance or adhesion

Adhesion								
180° peel test procedure is ASTM D 3330 90° peel test procedure is ASTM D 3330 modified for angle change								
	Initial (10 Minute Dwell/RT)				Conditioned for 3 Days at Room Temperature 22°C (72°F)			
	180° Peel		90° Peel		180° Peel		90° Peel	
Surface	N/100mm	Oz./In.	N/100mm	Oz./In.	N/100mm	Oz./In.	N/100mm	Oz./In.
Stainless Steel	96	88	69	63	105	96	82	75
Polycarbonate	98	90	71	65	103	94	76	69
Polypropylene	80	73	32	29	91	83	34	31
Glass	102	93	76	69	108	99	84	77
HD Polyethylene	59	54	30	27	63	58	35	32
LD Polyethylene	58	53	32	30	61	56	40	37
Smooth Powder Coating	93	85	-	-	97	89	-	-
Finely Texted Powder Coating	54	49	-	-	57	52	-	-

Surface	Conditioned for 3 days at 49°C (120°F)				Conditioned for 24 hours at 32°C (90°F) at 90% Relative Humidity			
	180° Peel		90° Peel		180° Peel		90° Peel	
	N/100mm	Oz./In.	N/100mm	Oz./In.	N/100mm	Oz./In.	N/100mm	Oz./In.
Stainless Steel	118	108	105	96	108	99	89	81
Polycarbonate	72	66	37	34	84	77	64	59
Polypropylene	89	81	16	33	85	78	51	47
Glass	116	106	94	86	97	89	79	72
HD Polyethylene	61	56	35	32	55	50	42	38
LD Polyethylene	16	15	15	14	47	43	44	40
Smooth Powder Coating	102	93	-	-	96	88	-	-
Finely Texted Powder Coating	61	56	-	-	55	50	-	-

Chemical Resistance

The properties defined are based on four-hour immersions at room temperature (72°F/22°C) unless otherwise noted. Samples were applied to stainless steel panels 24 hours prior to immersion and were evaluated one hour after removal from the solution for peel adhesion. Adhesion measured at 180° peel angle (ASTM D 3330) at 12 inches/minute

Surface	Adhesion to Stainless Steel		Appearance	Edge Penetration
	N/100mm	Oz./In.	Visual	Millimeters
Isopropyl Alcohol	96	88	No Change	0.6
Detergent 1% Alconox® Cleaner	101	92	No Change	1.3
Engine Oil (10W30) @ 250°F (121°C)	112	102	No Change	0.6
Water for 48 hours	73	67	No Change	0.1
pH 4	96	88	No Change	0.7
pH 10	91	83	No Change	1.4
Formula 409® Cleaner	101	92	No Change	1.3
Toluene	55	50	No Change	5.2
Acetone	65	59	No Change	4.9
Brake Fluid	107	98	No Change	0.1
Gasoline	61	56	No Change	4.6
Diesel Fuel	102	93	No Change	0.7

Accelerated Aging

ASTM D 3611 96 hours at 65°C (150°F) and 80% relative humidity

	Rate of Removal	N/100mm	Gram/Inch Width
180° Peel Adhesion from Stainless Steel	12 inches/minute	95	87

Compliance	RoHS 2 REACH 7872EC UL and cUL recognized (File MH18072)
Shelf Life (When stored at 15-20°C & 50-60% relative humidity)	2 years
Compatible Ribbons for Printing	Speciality Ribbon Range

IMPORTANT NOTICE

All Lighthouse products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects.

Published information concerning Lighthouse products is based on research, which the Company believes to be reliable, although such information does not constitute a warranty.

Because of the variety of uses of Lighthouse products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use. We recommend the purchaser conducts their own testing to determine the suitability for their required application. The purchaser shall assume all risks regarding such use. The seller shall not be liable for damages in excess of the purchase price of the product nor for incidental or consequential damages.

All specifications are subject to change without prior notice.