# PERFORMANCE GUIDE

## Represents Typical Values Only

www.mactac.com

# FGD6914N

Revised: 03/2022 CNS

## 2 mil Brushed Silver Metalized PET / MP690 / 3.2 mil SCK

| Description | | Applications and End Uses |
|---|---|---|
| **Product** | FGD6914 - 2 mil gloss top-coated, brushed silver metalized polyester with a durable and aggressive permanent acrylic adhesive and a 3.2 SCK liner.<br><br>*Recognized for UL969 component labels. This product is UL Recognized for indoor and outdoor applications. For specific recognition, consult UL file No. PGGU2.MH12627 Marking and Labeling Systems Materials and PGJI2.MH26726 Printing Materials.*<br><br>*CUL recognized under UL file No. PGGU8.MH12627 Marking and Labeling System Materials Certified for Canada and PGJI8.MH26726 Printing Materials.* | Designed for use in nameplate, durable equipment, and drum label applications. Excellent flexo and thermal transfer printability with most resin and wax/resin ribbons. |

**Face**

2 mil brushed silver metalized polyester, topcoated for superior printability via flexo and thermal transfer. Features high strength, tear resistance, dimensional stability, and temperature resistance.

**Physical Properties Without Adhesive**

| | | |
|---|---|---|
| Caliper, inches | 0.002 (2 mils) | ASTM D-2103 |
| Tensile, lbs./in. | 40 MD 60 CD | TAPPI-494 |

**Adhesive**

MP690 is a high performance, durable, permanent acrylic emulsion with aggressive initial tack, excellent ultimate adhesion, and mandrel hold. It is extremely chemical and solvent resistant and has very good adhesion to various high and low energy substrates.

**Physical Properties of Adhesive**

| | | |
|---|---|---|
| Thickness, inches | 0.001 +/- 10% | |
| Peel Adhesion, lbs./in. | 2.9 | PSTC-101A (30 min. applied) |
| *Temperature Ranges* | | |
| Minimum Application | +50°F (10°C) | CTM #45 Curwood Polyester Film Dry Surface |
| Service Ranges | -40°F to +302°F (-40°C to +150°C) | |
| Loop Tack – Stainless Steel, lbs./in. | 2.9 | PSTC-16 |

**Liner**

A semi-bleached, super-calendared kraft liner. Excellent for die cutting and stripping. The liner is coated with a release system designed for label dispensing. Primarily for roll–to-roll applications where a more demanding liner is needed.

| | | |
|---|---|---|
| Caliper, inches | 0.0032+/- 10% | TAPPI T-411 |
| Basis Weight, lbs. (24" x 36"/500 sheets) | 50 +/- 10% | TAPPI T-410 |

**Shelf Life**

Product retains its performance and properties for two years from date of manufacture when stored at 72° F and 50% relative humidity.

This product complies with CONEG regulations.

All MACtac Roll Label products meet the requirements of the Clean Air Act of 1990.

**** NOTE: Thermal transfer printing quality and bar code scannability are dependent upon the interworking of several elements; the ribbon, the printhead and the facestock. Please test all applications. Consult Mactac's Technical Marketing Department for guidelines regarding printer and ribbon compatibility.***

## Performance Data

Typical peel value of 2 mil PET face applied to tested surface in lbs./in.

| Surface | Initial | 72 hours @ Room Temp. | 72 hours @ 120º F. | 24 hours @ 90º F. / 90% RH |
|---|---|---|---|---|
| Stainless Steel | 3.0 | 5.9 | 6.8 | **1.5** |
| Aluminum | 3.2 | 5.8 | 6.3 | **3.7** |
| Polypropylene | 1.9 | 3.0 | 5.5 | **4.1** |
| HDPE | 2.5 | 5.7 | 4.1 | **4.1** |
| LDPE | 1.0 | 2.2 | 1.8 | **3.8** |
| ABS | 4.5 | 5.3 | 5.3 | **4.3** |
| **Polycarbonate** | **5.4** | **5.5** | **2.9** | **3.3** |

## Chemical Resistance

Typical peel value of 2 mil PET face applied to stainless steel and immersed in test chemicals for four hours, in lbs./in.

| Chemical | Adhesion |
|---|---|
| Isopropyl Alcohol | **4.6** |
| Oil | **6.4** |
| Oil @ 250° F. | **6.4** |
| Water | **4.3** |
| Acid – pH 4 | **5.4** |
| Base – pH 11 | **5.0** |
| 409® Cleaner | **5.4** |
| Toluene | **2.5** |
| Acetone | **2.8** |
| Brake Fluid | **6.4** |
| Gasoline | **2.8** |
| Diesel Fuel | **5.8** |
| Mineral Spirits | **5.3** |
| Hydraulic Fluid | **6.3** |
| Tide® Detergent | **5.7** |
| Kerosene | **5.3** |
| **Heptane** | **4.9** |

**Compliance Recognition:** UL

**Underwriters Laboratories, Inc.**

| Substrates | Minimum Temperature | | Maximum Temperature | | (I=Indoor Only I/O= Indoor & Outdoor) | Additional Conditions |
|---|---|---|---|---|---|---|
| | º F | º C | º F | º C | | |
| 1. Acrylic Paint | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 2. Alkyd Paint | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 3. Aluminum | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 4. Epoxy Paint | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 5. Galvanized Steel | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 6. Polyester Paint | -9.4 | -23 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 7. Polyester Powder Paint | -9.4 | -23 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 8. Polyurethane Powder Paint | -9.4 | -23 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 9. Porcelain | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 10. Stainless Steel | -40 | -40 | 302 | 150 | I/O | **C,F1,G,K,O** |
| 11. Acrylic Powder Paint | -40 | -40 | 257 | 125 | I/O | **C,F1,G,K,O** |
| 12. Epoxy Powder Paint | -40 | -40 | 257 | 125 | I/O | **C,F1,G,K,O** |
| 13. Melamine | -40 | -40 | 212 | 100 | I/O | **C,F1,G,K,O** |
| 14. Nylon | -40 | -40 | 212 | 100 | I/O | **C,F1,G,K,O** |
| 15. Phenolic | -40 | -40 | 212 | 100 | I/O | **C,F1,G,K,O** |
| 16. Polycarbonate | -40 | -40 | 212 | 100 | I/O | **C,F1,G,K,O** |
| 17. Unsat Thermoset Polyester | -40 | -40 | 212 | 100 | I/O | **C,F1,G,K,O** |
| 18. ABS Plastic | -40 | -40 | 176 | 80 | I/O | **C,F1,G,K,O** |
| 19. Epoxy | -40 | -40 | 176 | 80 | I/O | **C,F1,G,K,O** |
| 20. Polyphenylene Oxide | -40 | -40 | 176 | 80 | I/O | **C,F1,G,K,O** |
| 21. Polypropylene | -9.4 | -23 | 176 | 80 | I/O | **C,F1,G,K,O** |
| 22. Polystyrene | -40 | -40 | 176 | 80 | I/O | **C,F1,G,K,O** |
| 23. Polyvinyl Chloride | -40 | -40 | 176 | 80 | I/O | **C,F1,G,K,O** |
| 24. Acrylic | -40 | -40 | 140 | 60 | I/O | **C,F1,G,K,O** |
| **25. Polyethylene** | **-9.4** | **-23** | **140** | **60** | **I/O** | **C,F1,G,K,O** |

**Compliance Recognition, Inks:** UL PGJI2

**UL Recognized Thermal Transfer Ribbon**

- DNP “R510HF", "R550", "TR6070" thermal transfer ribbon
- Datamax "SDR-5", "IQRES+" Resin Ribbon

c UL us Underwriters Laboratories, Inc.

| Substrates | Maximum Temperature ° F | ° C | (I=Indoor Only I/O= Indoor & Outdoor) | Additional Conditions |
|---|---|---|---|---|
| 1. Metals | 302 | 150 | I/O | **C,G,K,O** |
| 2. Electrostatic coated metal A | 302 | 150 | I/O | **C,G,K,O** |
| 3. Electrostatic coated metal B | 257 | 125 | I/O | **C,G,K,O** |
| 4. Electrostatic coated metal C | 257 | 125 | I/O | **C,G,K,O** |
| 5. Electrostatic coated metal D | 302 | 150 | I/O | **C,G,K,O** |
| 6. Plastic Group I | 212 | 100 | I/O | - |
| 7. Plastic Group II | 176 | 80 | I/O | - |
| 8. Plastic Group III | 176 | 80 | I/O | - |
| 9. Plastic Group IV | 176 | 80 | I/O | - |
| 10. Plastic Group V | 176 | 80 | I/O | - |
| 11. Plastic Group VI | 176 | 80 | I/O | - |
| 12. Plastic Group VII | 176 | 80 | I/O | - |
| 13. Plastic Group VIII | 176 | 80 | I/O | - |
| **14. Porcelain (PRCLN)** | **302** | **150** | **I/O** | **C,G,K,O** |

C – Occasional exposure to Cooking Oil (room temp).

F1 – Occasional exposure to Fuel Oil No. 1.

G – Occasional exposure to Gasoline splashing.

K – Occasional exposure to Kerosene.

O – Occasional exposure to Lubricating Oil.



mactac®
A LINTEC COMPANY