



## Ref. 7872 — Bright platinum polyester

Bright platinum polyester 53 µm / #350 E acrylic adhesive / white densified glassine liner

### DESCRIPTION

Self-adhesive label made of bright platinum polyester, treated for thermal transfer printing. The #350 E acrylic adhesive, 46 µm thick, offers excellent adhesion even to low surface energy substrates and offers high resistance to temperature and chemicals. The 62 g/m<sup>2</sup> densified glassine liner is siliconised on both sides, to ease die-cutting and prevent adhesive transfer.

### QUICK SUMMARY

**Facestock:** Bright platinum polyester, 53 µm

**Adhesive:** #350 E permanent acrylic, 46 µm

**Liner:** White densified glassine, 62 g/m<sup>2</sup>

**Printing:** Thermal transfer with resin ribbons

#### Key points

- UL and cUL listed (file MH 18072)
- Bonds to low surface energy substrates
- High resistance to temperature and chemicals
- Adhesion retained after 72 h at -40 °C
- Shelf life: 24 months

### KEY ADVANTAGES

- Facestock treated for thermal transfer printing: resin ribbons give high durability of the markings.
- The treatment provides excellent ink anchorage with traditional press printing methods.
- #350 E adhesive: excellent adhesion to low surface energy substrates and resistance to temperature and chemicals.
- Adhesive thickness of 46 µm, allowing excellent adhesion on textured surfaces.
- 62 g/m<sup>2</sup> densified glassine liner, siliconised on both sides, which eases rotary die-cutting.
- UL listed (file MH 18072).

### RECOMMENDED APPLICATIONS

- Rating plates and barcode labels.
- Property identification and asset labelling in demanding environments.
- Warning, instruction and service labels on durable goods.
- Identification plates for durable goods, electronic equipment and sports equipment.

### PRINTABILITY

The facestock is treated to receive inks by thermal transfer, with resin ribbons recommended. It can also be printed by all the traditional rotary processes: flexo, hot stamping, letterpress and screen printing. Compatible ribbons: Armor AXR-7 and AXR-7+, Ricoh B110C, Sony TR 4070 and Keymax Alpha.



## MATERIAL STRUCTURE

| LAYER     | CODE   | DESCRIPTION                                                                                             |
|-----------|--------|---------------------------------------------------------------------------------------------------------|
| Facestock | —      | Bright platinum polyester. Thickness of 53 µm.                                                          |
| Adhesive  | #350 E | Permanent acrylic. Thickness of 46 µm.                                                                  |
| Liner     | —      | White densified glassine paper, siliconised on both sides. Thickness of 56 µm and substance of 62 g/m². |

## 90° PEEL ADHESION (FTM 2)

| SUBSTRATE AND CONDITION                              | UNITS | VALUE | STANDARD |
|------------------------------------------------------|-------|-------|----------|
| Aluminium (20 min at 23 °C)                          | N/cm  | 6.9   | FTM 2    |
| Aluminium (72 h at the UL maximum temperature)       | N/cm  | 9.4   | FTM 2    |
| Stainless steel (20 min at 23 °C)                    | N/cm  | 7.4   | FTM 2    |
| Stainless steel (72 h at the UL maximum temperature) | N/cm  | 11.0  | FTM 2    |
| ABS (20 min at 23 °C)                                | N/cm  | 6.9   | FTM 2    |
| Polycarbonate (20 min at 23 °C)                      | N/cm  | 7.1   | FTM 2    |
| Polypropylene (20 min at 23 °C)                      | N/cm  | 5.4   | FTM 2    |
| High-density polyethylene (20 min at 23 °C)          | N/cm  | 4.1   | FTM 2    |

## COLD ADHESION AND THERMAL STABILITY

| PROPERTY                                    | UNITS | VALUE                        | STANDARD |
|---------------------------------------------|-------|------------------------------|----------|
| Aluminium (−40 °C, 72 h)                    | N/cm  | 6.3                          | FTM 2    |
| Stainless steel (−40 °C, 72 h)              | N/cm  | 8.0                          | FTM 2    |
| ABS (−40 °C, 72 h)                          | N/cm  | 7.5                          | FTM 2    |
| Polypropylene (−40 °C, 72 h)                | N/cm  | 6.4                          | FTM 2    |
| High-density polyethylene (−40 °C, 72 h)    | N/cm  | 4.0                          | FTM 2    |
| Machine-direction shrinkage (149 °C, 24 h)  | %     | 0.7                          | —        |
| Cross-direction shrinkage (149 °C, 24 h)    | %     | 0.9                          | —        |
| Humidity resistance (38 °C, 100 % RH, 24 h) | —     | No visual or adhesion change | —        |

## CHEMICAL RESISTANCE

Four-hour immersion tests at 22 °C. The specimens are applied to stainless steel for 24 hours before immersion and adhesion is measured one hour afterwards, at a 90° angle (FTM 2 method) and 305 mm/min.



## RESULTS BY CHEMICAL

| CHEMICAL                | ADHESION TO STEEL (N/CM) | VISUAL APPEARANCE | EDGE PENETRATION (MM) |
|-------------------------|--------------------------|-------------------|-----------------------|
| Heptane                 | 8.2                      | No change         | 3                     |
| Petrol                  | 6.0                      | No change         | 3                     |
| Diesel                  | 6.1                      | No change         | 1                     |
| SAE 15W40 motor oil     | 7.4                      | No change         | 0                     |
| DOT 4 brake fluid       | 7.8                      | No change         | 1                     |
| Windscreen washer fluid | 7.1                      | No change         | 0                     |
| Isopropyl alcohol (IPA) | 6.8                      | No change         | 1                     |
| Toluene                 | 5.2                      | No change         | 4                     |
| Methyl ethyl ketone     | 5.4                      | No change         | 4                     |
| Citrus solvent          | 6.2                      | No change         | 2                     |
| Teepol detergent        | 7.4                      | No change         | 0                     |
| pH 4 solution           | 6.6                      | No change         | 0                     |
| pH 10 solution          | 7.2                      | No change         | 0                     |
| 409 solution            | 6.6                      | No change         | 0                     |

## STORAGE CONDITIONS

| PROPERTY                    | UNITS  | VALUE | TOLERANCE |
|-----------------------------|--------|-------|-----------|
| Optimum storage temperature | °C     | 22    | ± 2       |
| Storage relative humidity   | %      | 50    | ± 5       |
| Shelf life from manufacture | months | 24    | —         |

## STORAGE AND SHELF LIFE

Shelf life of 24 months from the date of manufacture, if the product is kept at 22 °C and 50 % relative humidity. Keeping the labels in plastic bags is recommended.

## USAGE RECOMMENDATIONS

- For the highest level of adhesion, the surface must be clean and dry.
- The solvents most used to clean surfaces are heptane and isopropyl alcohol.
- The best adhesion performance is achieved with the surface at room temperature or above.
- Low temperatures, below 10 °C, can stiffen the adhesive: adhesion can be increased by applying more pressure.
- Use rotary dies. Stacking the labels in sheets or fan-folding them is not recommended.



## IMPORTANT NOTES

- UL and cUL listed: refer to file MH 18072.
- Resin ribbons are recommended to achieve high durability of the markings.
- The values are averages determined by standard methods and are not valid for specification purposes.

*This document is a technical data sheet for commercial use. For any advice on the suitability of the material, please contact us.*