

Multi-fix Carbon fibre 1011 / 1012

TECHNICAL DATA SHEET



A Bemis Company

1. Product description

1011 (Silver) and 1012 (Black) are metallised specialty vinyl films, which are exceptionally suited for general purpose signage applications. Both films resist most marring and staining. The material cut easily using computer plotter, steel rule or thermal die methods, guillotine shear or rotary blade cutters. Both films can be printed using vinyl screen print inks, thermal transfer systems, solvent based ink jet printers and hot foil stamp devices.

2. Product construction

Face film: Extruded 75 micron rigid PVC metallised specialty film
Adhesive: Permanent, clear acrylic
Backing paper: 140gsm bleached(white) kraft.

3. Shelf life:

One year from date of purchase, when stored properly, in an environment free from excessive humidity, temperature extremes and direct sunlight.

4. Temperature ranges

Application +16°C to +32°C
End Use -35°C to +74°C

5. Physical and Chemical characteristics

Thickness: 100 microns(including adhesive;75µ PVC film,25µ acrylic Adhesive)
Dimensional stability: Good. Minimal shrinkage
Peel Adhesion: 13N/25mm (PSTC-1; 180° peel, 15 min. Dwell)
19N/25mm (PSTC-1; 180° peel, 24 hr. Dwell)
Both tested on stainless steel panels as standard substrate.
Backing paper: 140gr/m²

* **Solvent resistance:**

* **Petrol resistance:**

* **Chemical resistance:**

Resist many chemicals with intermittent contact (not submersion).

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6. Durability

Between 2 and 3 years outdoor durability for 1011 and 6 to 12 month outdoor durability for 1012. The films should not crack, peel, blister or delaminate, when processed and installed in accordance with accepted industry practices and standards to vertical substrates. Some colour fade, chalking and gloss reduction may occur within the stated period of durability

7. Recommendations

Application Surface:

Suitable for general purposes signage applications on clean, smooth, non-porous, flat surfaces. Some clear coats and automotive paints, which contain additives to repel dirt, grime, graffiti, etc., are problematic and not recommended for application. Untreated low energy surfaces, such as polyethylene and polypropylene, are not recommended for application. Metallised films, such as many reflectives, polyester, and Coburn PVC films, are not recommended for application to untreated metal surfaces, because dissimilarity of metals can result in galvanic corrosion.

Application instructions

Printing:

The PVC films can be printed using vinyl screen print inks, thermal transfer systems, solvent-based ink jet printers and hot foil stamp devices. Prior to production, the fabricator needs to determine the suitability of the raw materials and the printing or decorating technique. Always follow the manufacturer's recommendations with respect to fabrication.

Gels:

Gels are inherent in the vinyl extrusion process. A limited number is generally regarded as commercially acceptable.

Shim lines:

To create the embossed texture on the second surface of the vinyl, a pattern is etched into a flat metal stamping die called a shim. This shim is wrapped around a cylinder. The point, at which the two ends of the flat plate meet, often creates an impression in the film called a "shim line". This is not a defect, rather an inherent byproduct of the manufacturing process. Take this line into consideration, in designing overlaminates.

Using an overlaminate:

Printed graphics, which are subjected to petrochemical spillage or abrasion, should be protected with a vinyl overlaminate.

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Cutting:

Cutting the vinyl is similar to cutting an intermediate vinyl. Optimal cutting pressures vary depending on plotter type and blade sharpness. Typical pressure between 135 grams and 165 grams. For best cutting results, use a sharp 45° blade at slow cutting speeds with swivel knife plotters. For Gerber plotters, use 30° blade.

Substrate preparation:

1. Wash the substrate using warm water and detergent.
2. Remove remaining contamination, by cleaning the substrate a second time with isopropyl alcohol. Saturate a clean rag with alcohol and scrub the area to which the vinyl graphics will be applied. Before the solvent dries, use clean paper towels to wipe dirt away.
3. Learn as much as you can about the paint system. Each paint formulation is different, with some containing additives such as wax and silicone, both of which can cause adhesion problems. Some formulations of powder-coated paints can also be a problem. As a rule of thumb, allow a paint system to dry for one week, before graphics installation, especially if it's a polyurethane paint. Cure time can vary depending on the ambient temperature, humidity and the amount of hardner used. Application of graphics over a paint system that has not fully cured can result in the formation of bubbles underneath the vinyl, resulting from the paint outgassing.

Edge sealing is recommended:

Using a fine-tip brush, paint the edges of the vinyl with a commercial-grade product.

Important Notice

All Multi-fix 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 Multi-fix products is based upon research which the Company believes to be reliable although such information does not constitute a warranty.

Because of the variety of uses of Multi-fix products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and 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.

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