

RepliKote® PVDF Print – Performance Specification

1.0 SCOPE

This data sheet applies to hot dipped metallic-coated sheet steel and aluminum, precoated with **RepliKote®** PVDF print pattern colours for exterior exposure in building product applications. **RepliKote®** PVDF print systems have been designed for horizontal (15 - 85° from horizontal) and vertical (less than 5° from vertical) surfaces and for moderate atmospheric exposure. They are not recommended for aggressive exposure.

2.0 BASE METAL

The base metal prior to painting will be continuous hot dip galvanized steel (Reference ASTM-A653/A653M), Galvalume™ (Reference ASTM A792/A792M), or aluminum (produced in accordance with Aluminum Association specifications).

3.0 PAINT PROPERTIES

3.1 Paint Thickness

- 3.1.1 The exposed side shall have a nominal dry film thickness of 1.1 mils (Reference ASTM D5796). Higher films can be applied if required to match specific colors.
- 3.1.2 The unexposed (reverse) side will have a nominal dry film thickness of 0.20 mils, or as agreed with the customer.

3.2 Film Cure

The film as supplied shall withstand one hundred (100) MEK double rubs in accordance with ASTM D5402.

3.3 Formability or Fabrication Resistance

When testing a representative sample at 70°F ± 5°F (20°C ± 2°C) using #600 Scotch Cellophane tape or equivalent, the paint system will show no loss of adhesion when subjected to a 3T 180° bend (Reference ASTM D4145). This requirement only applies to hot dipped galvanize or Galvalume™ substrates up to 0.027" thickness and those grades and thicknesses of aluminum capable of forming a 3T bend without cracking.

3.4 Gloss

The gloss measured with a 60° Glossmeter in accordance with ASTM D523, shall be maximum 10 gloss units for standard specification coatings, or as agreed between the customer and MSC. This requirement does not apply to textured systems, as it is not possible to get a precise gloss measurement on these surfaces.

3.5 Exterior Exposure (Weathering)

The system will successfully meet the following weathering standards in Canada and the continental U.S.A., providing the product has not been exposed to standing water or aggressive environments (including salt water, animal waste, and any chemicals not normally encountered in the atmosphere), and providing there is no evidence of compromised integrity due to improper storage, fabrication, installation, or lack of maintenance. In rare case, exotic colours may not meet the standards herein and these will be identified in the order enquiry process.

During the first forty (40) years of exterior exposure in normal roll-formed applications, the film shall have shown no evidence of cracking, checking, peeling, crazing, spotting or loss of adhesion during ordinary outdoor visual observation. Minute fracturing, which may occur in proper fabrication of the parts, and failure due to substrate corrosion are not covered by this specification.

For metallic systems, this specification shall be limited to twenty (20) years.

3.6.2 Chalking

Chalking shall not exceed #8 during the first thirty (30) years of exposure. (Reference ASTM-D4214).

For metallic systems, this specification shall be limited to twenty (20) years.

3.6.3 Color Change

It is not possible to instrumentally measure the color on a printed surface due to the natural variations in the pattern. The print appearance will remain intact and distinguishable during the first twenty (20) years of exposure. Color change shall be uniform. Panels or portions of a panel receiving significantly unequal sun exposure due to installation conditions shall be exempt from this requirement in those areas of unequal exposure.

4.0 COLOR MATCH

It is not commercially possible for each lot of prefinished steel to be an exact color match. As visual tolerances necessary with printed product allow for color subjectivity, every effort must be made to segregate the product by lots for any individual end customer.

Metallic products will exhibit color shift, shade variations, and patterning due to the inherent nature of the product and these conditions will not be considered a cause for claim or rejection.

The data and information contained herein is based on research and information currently available. As further research or development occurs, amendments may become necessary. Material Sciences Corporation (MSC) and Continuous Colour Coat Limited (CCCL) reserve the right to alter and modify any of its products at any time regardless of whether or not the data and information contained herein requires amendment as a result. This data sheet supercedes any previously issued information on this product.

MSC and CCCL disclaim any liability for the use of the information contained herein. The reader should satisfy themselves as to the potential applicability or suitability of any **RepliKote®** series. MSC and CCCL give no warranties or guaranties as to the suitability of any opinions, data or information given herein and leaves the final decision with respect to the selection of a product to the responsibility of the purchaser.

MSC and CCCL further disclaim any and all liability arising from the purchaser's eventual use of the product supplied by it and limits its warranties to those expressed in our Standard Terms and Conditions of Sale outlined on the "Quotation" and "Acknowledgement of Order" forms. Claims will not be honored for damage resulting from acts of God, radiation, cut edge exposure or corrosion of the substrate, falling objects, explosion, fire, riots, civil commotion, acts of war or other external forces. Aggressive environments not covered by this specification include, but are not limited to: exposure to ash, cement dust, carbon black, animal waste, poor circulation leading to condensation, fallout from copper, lead, nickel, or silver mining or refining operations, salts or other chemicals whether naturally occurring or caused by man, and any location within 1000 meters of salt water. All claims of any type shall be subject to investigation to determine their validity.