

# > SURFACE MASTER<sup>®</sup> 905 SURFACING FILM

TECHNICAL DATA SHEET



## DESCRIPTION

SURFACE MASTER<sup>®</sup> 905 is a next generation surface film which delivers a step increase in surface quality versus currently available products.

Use of SURFACE MASTER 905 dramatically reduces part manufacturing cost associated with surface preparation by virtually eliminating surface imperfections such as surface pin holes and pits. Elimination of these surface imperfections dramatically decreases the need for time consuming "sweep and fill" operations. Further cost reduction can be gained by using SURFACE MASTER 905 through the elimination of paint primer operations.

Lightning strike protection screen material can be easily imbedded in SURFACE MASTER 905 and result in the same excellent surface quality delivered by the standard product. SURFACE MASTER 905 can be combined with all currently utilized lightning strike screen materials.

SURFACE MASTER 905 also offers a dramatic increase in shop lifetime (45 days), drastically reduces residue left on the tool and has excellent tack and drape characteristics at room temperature.

SURFACE MASTER 905 is an epoxy based co-curable composite surfacing film which is compatible with most 250°F (121°C) and 350°F (177°C) autoclave or vacuum bag cure systems.

## FEATURES & BENEFITS

- Provides high quality smooth surface requiring minimum preparation for painting
- Virtually eliminates typical surface porosity and imperfections
- Shop life of 45 days at ambient temperature
- Co-curable with composite matrix resins at 250°F (121°C) and 350°F (177°C)
- Excellent tack and drape
- Reduces residue transfer to tool surface
- Can be screen laminated to provide lightning strike protection
- Product accepts pigmenting for tailor-made coloring
- Good shear and peel properties
- Available in automated tape laying (ATL) configurations

## SUGGESTED APPLICATIONS

- All composite surfacing applications
- Primary and secondary structures

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## CHARACTERISTICS

Table 1 | Properties of Uncured Material

<b>Color</b>	Light gray/white
<b>Weight/Thickness</b>	0.035 psf (171g/m <sup>2</sup> )/0.005 in (0.127 mm) 0.045 psf (220 g/m <sup>2</sup> )/0.0065 in (0.165 mm)
<b>Volatiles</b>	Max, 1.0%
<b>Gel time at 250°F (121°C)</b>	12 – 15 minutes
<b>Gel time at 350°F (177°C)</b>	80 – 100 seconds
<b>Storage</b>	Store at or below 0°F (-18°C)
<b>Shelf life</b>	12 months from date of shipment at recommended storage
<b>Shop life</b>	45 days at 77°F (25°C)
<b>Layup</b>	The film side where the majority of the resin is closest to the surface should be placed against the tool during layup.
<b>Curing</b>	60 – 90 minutes at 250°F (121°C) or 350°F (177°C) with 45 ± 5 psi (0.31 ± 0.03 MPa) pressure or follow the prepreg cure cycle.

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## Comparison of Part Surface Using Competitive Product and SURFACE MASTER 905

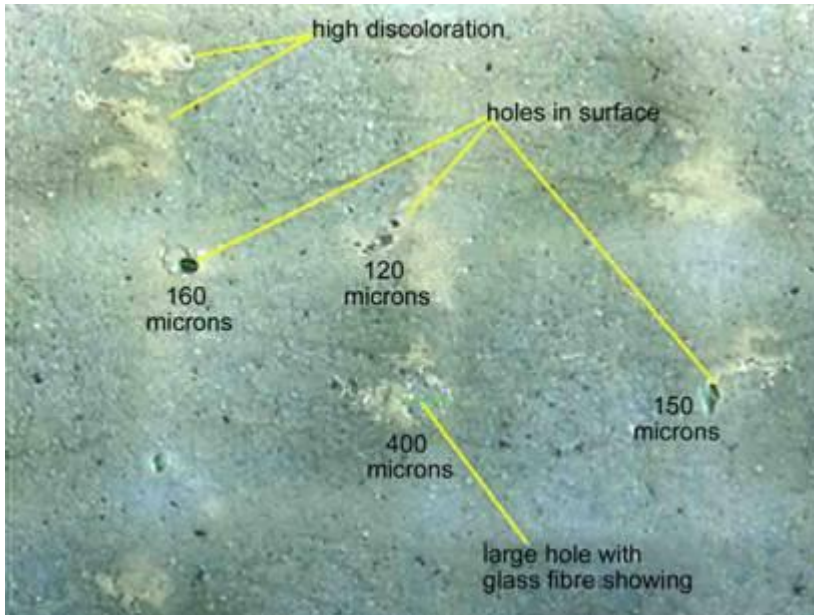


Figure 1 | Competitive Product: Noticeable Population of Surface Defects



Figure 2 | SURFACE MASTER 905: Defect Free

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## PRODUCT HANDLING AND SAFETY

Cytec Engineered Materials recommends wearing clean, impervious gloves when working with surfacing films to reduce skin contact and to avoid contamination of the product.

Materials Safety Data Sheets (MSDS) and product labels are available upon request and can be obtained from any Cytec Engineered Materials Office.

## DISPOSAL OF SCRAP MATERIAL

Disposal of scrap material should be in accordance with local, state, and federal regulations.

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