

# AIRDEC-SF LHR

AIRDEC-SF LHR is a decorated thermoplastic sheet laminate that can be thermoformed into a variety of aircraft interior parts. AIRDEC-SF LHR meets the <sup>1</sup>FAA heat release and smoke emission requirements for passenger aircraft cabin interior parts.

<b>THICKNESS</b>	AIRDEC-SF LHR is available in thicknesses from 0.010" to 0.160" thick, to provide the optimum balance of part depth and stiffness.									
<b>COLOR</b>	AIRDEC-SF LHR is available in an unlimited number of colors and patterns.									
<b>TEXTURE</b>	AIRDEC-SF LHR is available in a wide range of textures, and it will also accurately reproduce textured mold detail.									
<b>GLOSS</b>	AIRDEC-SF LHR is available in both high and medium gloss variations.									
<b>CLEANING</b>	Because of its <sup>2</sup> Kynar <sup>®</sup> surface, AIRDEC-SF LHR possesses exceptional resistance to staining, <sup>3</sup> solvents, chemicals, and abrasion, and is very easy to clean with common cleaners.									
<b>QUALITY</b>	Founded on years of experience, high quality materials, and a very controlled process, the color, texture, and integrity of this product is guaranteed.									
<b>ADHESIVES</b>	AIRDEC-SF LHR is available bare without adhesive, with pressure sensitive adhesive for room temperature application, and with strippable heat activated adhesive that is activated at approximately 240°F (115°C) for vacuum application to formed composite panels.									
<b>PROPERTIES</b>	AIRDEC-SF LHR is a thermoplastic sheet laminate, which exhibits excellent part stiffness and impact resistance, and accurate reproduction of mold detail in conventional thermoforming operations at forming temperatures of 335°F to 365°F (168°C to 185°C).									
<b>TYPICAL APPLICATIONS</b>	<table border="0" style="width: 100%;"> <tr> <td>Bullnose</td> <td>Stowage Bins</td> <td>Window Panels</td> </tr> <tr> <td>Door Linings</td> <td>Trim Strips</td> <td></td> </tr> <tr> <td>PSU's</td> <td>Trolley Panels</td> <td></td> </tr> </table>	Bullnose	Stowage Bins	Window Panels	Door Linings	Trim Strips		PSU's	Trolley Panels	
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Door Linings	Trim Strips									
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<b>FORMAT</b>	AIRDEC-SF LHR is available in sheets nominally 48 inches (1219 mm) wide, by 96 inches (2438 mm) long. Other sizes are available upon request.									

<sup>1</sup> FAR 25.853 Paragraph (d) and FAR 25 Appendix F

<sup>2</sup> Kynar<sup>®</sup> is the registered trademark of ATOFINA Chemicals Inc.

<sup>3</sup> The use of Ketone solvents is not recommended.

## AIRDEC-SF LHR

CHARACTERISTIC	TEST METHOD	UNIT	TYPICAL VALUES
THICKNESS	Micrometer before texturing	inch / mm	0.020 / 0.50 <sup>2</sup> 0.023 / 0.58 <sup>3</sup> 0.022 / 0.56 <sup>4</sup>
WEIGHT	ASTM D 461 (11)	oz/yd <sup>2</sup> / g/m <sup>2</sup>	25 / 848 <sup>2</sup> 27 / 915 <sup>3</sup> 27 / 915 <sup>4</sup>
ADHESION OF LAYERS	DMS 2290 4.5.4 and 3.4.4	Pass / Fail	Pass <sup>2,3,4</sup>
COLORFASTNESS TO LIGHT	DMS 2292 4.5.2 and 3.4.2 FTMS No. 191 Method 5660	Pass / Fail	Pass (no change after 50 hours)
TENSILE STRENGTH	ASTM D-638	psi / MPa	6400 / 44.1 <sup>1</sup>
FLEXURAL STRENGTH	ASTM D-790	psi / MPa	10200 / 70.3 <sup>1</sup>
FLEXURAL MODULUS	ASTM D-790	psi / MPa	440000 / 3034 <sup>1</sup>
HARDNESS	ASTM D-785	Rockwell R	110 <sup>1</sup>
HEAT DEFLECTION TEMPERATURE	ASTM D-648	°F / °C at 264 psi	168 / 75.5 <sup>1</sup>
HEAT RELEASE	FAR 25.853 (d) / FAR 25 App. F Pt. IV Amdt. 83	Pass / Fail	Pass <sup>2,3,4</sup>
SMOKE DENSITY	FAR 25.853 (d) / FAR 25 App. F Pt. V Amdt. 83 ASTM E-662	Pass / Fail	Pass <sup>2,3,4</sup>
FLAMMABILITY (60 Second Vertical)	FAR 25.853 (d) / FAR 25 App. F Pt. IV Amdt. 83	Pass / Fail	Pass <sup>2,3,4</sup>
DRYING TIME	Experiment	Hours	1 hour at 250°F (121°C) per 0.040 inches (1 mm) of thickness <sup>5</sup>
FORMING TEMPERATURE	Experiment	°F / °C	335°F - 365°F / 168°C - 185°C
HEAT ACTIVATED ADHESIVE ACTIVATION TEMPERATURE	Experiment	°F / °C	240°F / 115°C
MOLD SHRINKAGE	Experiment	in / in mm / mm	0.005 - 0.007 <sup>1</sup> 0.005 - 0.007 <sup>1</sup>

<sup>1</sup> Tests performed on 0.125-inch thick, LHR-version material

<sup>2</sup> Tests performed on 0.020-inch thick, LHR-version material, with no adhesive and no backing panel

<sup>3</sup> Tests performed on 0.020-inch thick, LHR-version material, with pressure sensitive adhesive and backing panel

<sup>4</sup> Tests performed on 0.020-inch thick, LHR-version material, with heat activated adhesive and backing panel

<sup>5</sup> Not recommended or required for pressure sensitive backed material.