POLYVANTIS

# PRODUCT DATASHEET

# LEXAN™ SDCX50 FILM

## DESCRIPTION

LEXAN™ SDCX50 Film is a co-extruded polycarbonate film with a core LEXAN SD8B24 layer and a 50µm LEXAN SD8B94 cap-layer with a fine matte (FM) texture on both sides. This polycarbonate film is typically used in government security documents, such as passport data pages, ID cards, driving licenses and many more. It offers great printability and ease of processing (laminating, die-cutting, hot stamping). LEXAN SDCX50 Film is available in 150µm and in the color WH9B246.

## TYPICAL PROPERTY VALUES*

| PROPERTY | ASTM TEST METHOD | UNITS (USCS) | VALUE | ISO TEST METHOD | UNITS (SI) | VALUE |
|---|---|---|---|---|---|---|
| **MECHANICAL** | | | | | | |
| Tensile Strength @Yield | ASTM D882 | psi | 8265 | ISO 527 | MPa | 57 |
| @Break | ASTM D882 | psi | 8265 | ISO 527 | MPa | 57 |
| Tensile Modulus | ASTM D882 | psi | 348 x10$^3$ | ISO 527 | MPa | 2400 |
| Tensile Elongation at Break | ASTM D882 | % | 130 | ISO 527 | % | 130 |
| **THERMAL** | | | | | | |
| Vicat Softening Temperature, B50 | ASTM 1525 | °F | 297 | ISO 306 | °C | 147 |
| Shrinkage at 130°C, 30min | Internal method | % | 0.17 | Internal method | % | 0.17 |
| **PHYSICAL** | | | | | | |
| Density | ASTM D792 | slug/ft$^3$ | 2.51 | ISO 1183 | g/cm$^3$ | 1.29 |
| Surface Roughness Ra (core side) | | µin | 16.5 | ISO 4288 | µm | 0.42 |
| Surface Roughness Ra (cap-layer side) | | µin | 46.5 | ISO 4288 | µm | 1.18 |
| **OPTICAL** | | | | | | |
| Light Transmission | ASTM D1003 | % | 84 | | % | 84 |
| Color: b-value | CIELab, Reflection, | | 3.26 | CIELab, Reflection, | | 3.26 |
| | D65, 10° | | | D65, 10° | | |

♦ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local POLYVANTIS, Film & Sheet representative or the Quality Services Department. Reported Values are based on 0.150 mm (0.005") thickness film, except for the Coefficient of thermal expansion, Vicat softening temperature, Heat deflection temperature and water absorption, which are based on molded parts.

| NOMINAL GAUGE RANGES | MIN./MAX LIMIT OF NOMINAL |
|---|---|
| 0.150 mm | ± 5% |

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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