

# LEXAN™ HPXXE FILM

## PRODUCT DATASHEET

### DESCRIPTION

LEXAN™ HPXXE graphic films are high-performance coated films offering excellent chemical and highest abrasion resistant package of any films in the SABIC graphic film product line. Features include: Extreme durability of coating, 1/8" Mandrel bend flexibility, Gouge resistance, excellent clarity and consistency of gloss level.

Note: LEXAN™ HPXXE film cannot be first surface printed with graphics or textures and it is not suggested for 3D forming.

### TYPICAL PROPERTY VALUES

| PROPERTY                                | ASTM TEST METHOD | UNITS (USCS)         | VALUE | ISO TEST METHOD | UNITS (SI)        | VALUE |
|---|------------------|----------------------|-------|-----------------|-------------------|-------|
| <b>MECHANICAL</b>                       |                  |                      |       |                 |                   |       |
| Tensile Strength @ Yield                | ASTM D882        | psi                  | 8800  | ISO 527         | MPa               | 60    |
| Ultimate                                | ASTM D882        | psi                  | 9000  | ISO 527         | MPa               | 62    |
| Tear Strength                           |                  |                      |       |                 |                   |       |
| Initiation                              | ASTM D1004       | lb/mil               | 1.51  | ISO 34          | kN/m              | 264   |
| Propagation                             | ASTM D1922       | g/mil                | 40    |                 | kN/m              | 14    |
| <b>THERMAL</b>                          |                  |                      |       |                 |                   |       |
| Vicat Softening Temperature, B          | ASTM 1525        | °F                   | 320   | ISO 306         | °C                | 160   |
| Heat Deflection Temp. by TMA at 1.8 Mpa |                  | °F                   | 290   | ISO 75 Modified | °C                | 145   |
| Shrinkage at 302°F (150°C)              | ASTM D1204       | %                    | 1.40% |                 |                   | 1.40% |
| <b>PHYSICAL</b>                         |                  |                      |       |                 |                   |       |
| Density                                 | ASTM D792        | slug/ft <sup>3</sup> | 2.3   | ISO 1183        | kg/m <sup>3</sup> | 1200  |
| Pencil Hardness                         | ASTM D3363       | -                    | HB    |                 |                   |       |
| Taber Abrasion                          | ASTM D1044       | delta Haze           | 3-4   |                 |                   |       |
| <b>OPTICAL</b>                          |                  |                      |       |                 |                   |       |
| Light Transmission                      | ASTM D1003       | %                    | 92    |                 |                   |       |
| Yellowness Index                        | ASTM D1925       | %                    | 0.7   |                 |                   |       |
| Haze                                    | ASTM D1003       | %                    | 0.5   |                 |                   |       |

◆ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC representative or the SABIC Quality Services Department. Reported Values are Based on 0.010" (0.250 mm) Thickness unless otherwise noted.

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## MANUFACTURING SPECIFICATIONS

| NOMINAL GAUGE RANGES | MIN./MAX LIMIT OF NOMINAL |
|----------------------|---------------------------|
| 0.007" (0.175mm)     | -10% / +24%               |
| 0.010" (0.250mm)     | -10% / +20%               |
| 0.015" (0.375mm)     | -5% / +12%                |
| 0.020" (0.500mm)     | -5% / +10%                |

## CHEMICAL RESISTANCE

| CHEMICAL                                     | RESULTS |
|--|---------|
| One Hour Continuous Surface Contact at 73° F |         |
| Acetone                                      | Passed  |
| MEK  | Passed  |
| Toluene                                      | Passed  |
| Methylene Chloride                           | Passed  |
| Isopropyl Alcohol                            | Passed  |
| Cyclohexane                                  | Passed  |
| Ethyl Acetate                                | Passed  |
| 40% NaOH                                     | Passed  |
| Conc.HCL                                     | Passed  |
| Gasoline (Unleaded)                          | Passed  |
| Butyl Cellosolve                             | Passed  |

Failure constitutes any of the following: non-removable stain or cloudiness, blistering, delamination, or cracking of the coating or failure to pass crosshatch tape adhesion.

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