AZDEL Composite & Material Solutions

# Product Datasheet

**Product :** SuperLite XLT® **Grade :** SLXLTA.0641BZ

**Status**[7] **:** Commercial **Revision :** 1 **Date :** 20-Dec-2007

## General Description

AZDEL SuperLite SLXLTA.0651BZ is a thermoformable, thermoplastic composite sheet comprised of a low-density polypropylene and chopped glass-fiber core, combined with a PET scrim with barrier film attached to one surface and a perforated adhesive film to the other surface. This material is typically used as a substrate in semi-structural applications where a very high strength-to-weight ratio is required, such as in automotive headliners, door panels, rear parcel shelves, sunshades and other interior trim.

| Construction Code | Surface A | Surface B |
|---|---|---|
| BZ | Perforated adhesive film | Spunbond PET scrim with Barrier film |

## Typical Properties[1] - Independent of Molded Thickness

| Property | Test Method | Unit | Target Value |
|---|---|---|---|
| Basis Weight (mass-per-unit-area) | | | |
| - Low density Core | ASTM D-3776 | g/m² | 640 |
| - Total (including film and scrim) | ASTM D-3776 | g/m² | 750 |
| Sheet Thickness (as produced) | | mm | |
| Free-Loft ratio[2] (maximum, when heated to 205ºC) | Internal | | 5.5:1 |
| Color | | | |
| - Low Density Core | Visual | | Natural |
| - PET Scrim with Barrier film | Visual | | White |
| - Adhesive Film | Visual | | Clear |
| Flammability | | | |
| - Maximum Burn Rate | FMVSS-302 | mm/min. | 35 |
| - Self-extinguishing? | | | No |
| Fogging (Haze) - Minimum Fog Number | | | |
| Odor - Maximum Number (using 1-Liter Glass Jars) | | | |
| Maximum in-use operating temperature[3] | | ºC | 90 |

## Typical Properties[1] - Dependent on Molded Thickness

| Property | Test Method | Unit | Molded Thickness (mm) | | |
|---|---|---|---|---|---|
| | | | 4.0 | 5.0 | 6.5 |
| Specific Gravity | | | | | |
| MD[4] Flex. Slope | AZDEL Internal | N/cm | 32.90 | 45.90 | 47.70 |
| TD[5] Flex. Slope | AZDEL Internal | N/cm | 23.00 | 25.80 | 32.40 |
| MD Flex. Peak Load | AZDEL Internal | N | 11.40 | 13.00 | 12.00 |
| TD Flex. Peak Load | AZDEL Internal | N | 8.40 | 9.30 | 9.00 |
| Average Flex. Peak Load | AZDEL Internal | N | 9.90 | 11.15 | 10.50 |
| MD/TD Peak Load Ratio | AZDEL Internal | | 1.36 | 1.40 | 1.33 |
| Toughness | | | | | |

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## Typical Properties[1] - Dependent on Molded Thickness (cont'd)

| Property | Test Method | Unit | Molded Thickness (mm) | | |
|---|---|---|---|---|---|
| | | | 4.0 | 5.0 | 6.5 |
| Dynatup Impact | | | | | |
| Air Permeability | ASTM C-522 | cfm | none | none | none |
| Acoustics (with Fabric[6]) | | | | | |
| - Sound Absorption Coef. | SAE J1400 | @ 500 Hz | | | 0.08 |
| - Sound Absorption Coef. | SAE J1400 | @ 1000 Hz | | | 0.19 |
| - Sound Absorption Coef. | SAE J1400 | @ 2000 Hz | | | 0.44 |
| - Sound Absorption Coef. | SAE J1400 | @ 4000 Hz | | | 0.93 |
| Peel Test | | | | | |
| - Surface A | | | | | |
| - Surface B | | | | | |

## Notes

1. Measured on flat plaques.
2. The free-loft ratio is the ratio of original, as produced, sheet thickness versus the lofted sheet thickness when heated to 205ºC and not molded.
3. The maximum in-use temperature is typically driven by the adhesion of surface skins to the low density core, or by the de-bonding temperature of the adhesive film.
4. MD = Properties measured in the as manufactured Machine Direction.
5. TD = Properties measured perpendicular to the as manufactured Machine Direction (i.e.; Transverse.)
6. A typical automotive fabric and foam are used for the acoustical evaluation. Please contact your AZDEL representative if you want your own cover-stock tested with this product.
7. This Product is commercially available, subject to AZDEL's Standard Terms of Sale.

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168