

Lustran SAN 31

Lustran SAN 31 resin is an injection molding grade of transparent styrene acrylonitrile thermoplastic. The base resin used in the Lustran SAN 31 product is in chemical compliance with 21 CFR 181.32 (acrylonitrile copolymers and resins) for use in the manufacture of repeated-use houseware articles. It also meets U.S. Pharmacopeia 23 Class 6 test requirements. The resin is available in natural (1000) color, crystal (2060) tint, and transparent and opaque custom colors. Typical applications include beverage tumblers and mugs, blender jars, tableware, dinnerware, cosmetic packaging, instrument lenses, and medical devices.

| Property | Test Condition | Unit | Standard | Value |
|--|---|---------------------|-------------|---------------|
| Rheological properties | | | | |
| Mold shrinkage, flow/cross to flow | Value range based on general practical experience | in/in | ASTM D 955 | 0.003 - 0.004 |
| Melt flow rate | 230 °C; 3.8 kg | g/(10 min) | ASTM D 1238 | 7.5 |
| Mechanical properties (23 °C/50 % r. h.) | | | | |
| Tensile modulus | - | lb/in ² | ASTM D 638 | 475000 |
| Tensile stress at break | - | lb/in ² | ASTM D 638 | 10500 |
| Izod notched impact strength | 73 °F, 0.125 in | ft-lb/in | ASTM D 256 | 0.4 |
| Unnotched impact strength | 73 °F, 0.125 in | ft-lb/in | ASTM D 4812 | 4.5 |
| Flexural modulus | - | lb/in ² | ASTM D 790 | 500000 |
| Flexural stress at yield | - | lb/in ² | ASTM D 790 | 16700 |
| Rockwell hardness | - | M Scale | ASTM D 785 | 83 |
| Deformation under load | 4,000 psi; 122 °F; 24 h | % | ASTM D 621 | 1.5 |
| Thermal properties | | | | |
| Deflection temperature under load, Annealed | 264 psi; 0.500 in | °F | ASTM D 648 | 218 |
| Deflection temperature under load, Unannealed | 264 psi; 0.500 in | °F | ASTM D 648 | 205 |
| Vicat softening temperature | Rate B; 1 kg; 120 °C/h | °F | ASTM D 1525 | 230 |
| Coefficient of linear thermal expansion, flow/cross-flow | - | in/in/°F | ASTM D 696 | 3.8E-05 |
| UL94 Flame Class [UL listed] | Thickness tested: 1.57 mm | Class | UL 94 | HB |
| UL94 Flame Class [UL listed] | Thickness tested: 3.05 mm | Class | UL 94 | HB |
| UL94 Flame Class [UL listed] | Thickness tested: 6.10 mm | Class | UL 94 | HB |
| Relative temperature index, mechanical with impact | Thickness tested: 1.57 mm | °C | UL 746B | 50 |
| Relative temperature index, mechanical without impact | Thickness tested: 1.57 mm | °C | UL 746B | 50 |
| Relative temperature index, electrical | Thickness tested: 1.57 mm | °C | UL 746B | 50 |
| Other properties (23 °C) | | | | |
| Density | - | lb/in ³ | ASTM D 792 | 0.039 |
| Specific volume | - | in ³ /lb | ASTM D 792 | 25.9 |
| Specific gravity | - | - | ASTM D 792 | 1.07 |
| Material specific properties | | | | |
| Refractive index | - | - | ASTM D 542 | 1.57 |
| Luminous transmittance (clear transparent materials) | 0.125 in | % | ASTM D 1003 | 87 - 88 |
| Haze for transparent materials | 0.125 in | % | ASTM D 1003 | 0.7 |

colors: all



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Disclaimer

Standard Disclaimer

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee, and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling LANXESS products mentioned in this publication. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets (MSDS) and product labels. Consult your LANXESS Corporation representative or contact the Product Safety and Regulatory Affairs Department at LANXESS. For materials that are not LANXESS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturer(s) must be followed.

Regulatory Compliance

Some of the end uses of the products described in this brochure must comply with applicable regulations, such as the FDA, NSF, USDA and CPSC. If you have any questions on the regulatory status of any LANXESS engineering thermoplastic, consult your LANXESS Corporation representative or contact the LANXESS Regulatory Affairs Manager.

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