

# NORYLTM RESIN EFN4230

### **REGION ASIA**

### **DESCRIPTION**

NORYL EFN4230 resin is a high heat, transparent, non-reinforced blend of polyphenylene ether (PPE) + general purpose polystyrene (GPPS). This material may be an excellent candidate for industrial packaging applications. \*See NORYL EFN4230S for FDA Food Contact compliant version

| GENERAL INFORMATION   |   |
|-----------------------|---|
| Features              | Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Transparent/Translucent, Dimensional stability, No PFAS intentionally added |
| Fillers               | Unreinforced  |
| Polymer Types         | Polyphenylene Ether + PS (PPE+PS)   |
| Processing Techniques | Extrusion   |

| INDUSTRY   | SUB INDUSTRY         |
|------------|----------------------|
| Industrial | Material Handling    |
| Packaging  | Industrial Packaging |

### **TYPICAL PROPERTY VALUES**

Revision 20241016

| PROPERTIES                                  | TYPICAL VALUES | UNITS    | TEST METHODS         |
|---|----------------|----------|----------------------|
| MECHANICAL (1)                              |                |          |                      |
| Tensile Stress, yield                       | 81             | MPa      | SABIC - Japan Method |
| Tensile Strain, break                       | 80             | %        | SABIC - Japan Method |
| Flexural Stress                             | 119            | MPa      | ASTM D790            |
| Flexural Modulus                            | 2800           | MPa      | ASTM D790            |
| IMPACT (1)                                  |                |          |                      |
| Izod Impact, notched, 23°C                  | 31             | J/m      | ASTM D256            |
| THERMAL (1)                                 |                |          |                      |
| HDT, 1.82 MPa, 6.4 mm, unannealed           | 147            | °C       | ASTM D648            |
| CTE, -30°C to 30°C                          | 6.0E-05        | 1/°C     | TMA                  |
| PHYSICAL (1)                                |                |          |                      |
| Specific Gravity                            | 1.08           | -        | ASTM D792            |
| Water Absorption, (23°C/24hrs)              | 0.07           | %        | ASTM D570            |
| Mold Shrinkage, flow, 3.2 mm <sup>(2)</sup> | 0.5 – 0.7      | %        | SABIC method         |
| Melt Flow Rate, 300°C/5.0 kgf               | 14.2           | g/10 min | ASTM D1238           |

<sup>(1)</sup> The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

<sup>(2)</sup> Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.



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