

# EMERGE™ PC 8830-5 LT

Advanced Resin

Trinseo

## Message:

EMERGE™ PC 8830-5 LT Advanced Resin is a transparent, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based flame retardant, designed to meet the German norm DIN VDE-0472/Part 815 on halogens. This resin combines good mechanical and heat resistant properties, ensuring longer sustained aesthetics and mechanical resistance to the applications. EMERGE™ PC 8830-5LT has a UL 94 V-0 rating at 1.0 mm and contains mould release agent and UV stabilizer

Applications  
LED Tube, LED lamp Lens  
Electrical parts

| General Information                      |                                                                                                                                      |                   |                  |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|
| UL YellowCard                            | E213639-102002225                                                                                                                    | E206114-102915123 | E54680-102915124 |
| Additive                                 | demoulding<br>UV stabilizer                                                                                                          |                   |                  |
| Features                                 | Chlorine Free<br>Phosphorus content, low (to none)<br>Heat resistance, medium<br>Good appearance<br>Bromine-free<br>Flame retardancy |                   |                  |
| Uses                                     | Clear Sheet<br>Lighting Applications<br>Electrical/Electronic Applications<br>Sheet                                                  |                   |                  |
| Agency Ratings                           | DIN VDE 0472 part 815                                                                                                                |                   |                  |
| Appearance                               | Clear/transparent                                                                                                                    |                   |                  |
| Forms                                    | Particle                                                                                                                             |                   |                  |
| Processing Method                        | Sheet extrusion molding                                                                                                              |                   |                  |
| Physical                                 | Nominal Value                                                                                                                        | Unit              | Test Method      |
| Density                                  | 1.20                                                                                                                                 | g/cm³             | ISO 1183/B       |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 5.0                                                                                                                                  | g/10 min          | ISO 1133         |
| Molding Shrinkage                        |                                                                                                                                      |                   | ISO 294-4        |
| Transverse flow                          | 0.70                                                                                                                                 | %                 | ISO 294-4        |
| Flow                                     | 0.70                                                                                                                                 | %                 | ISO 294-4        |
| Mechanical                               | Nominal Value                                                                                                                        | Unit              | Test Method      |
| Tensile Modulus                          | 2400                                                                                                                                 | MPa               | ISO 527-2/1      |
| Tensile Stress                           |                                                                                                                                      |                   | ISO 527-2/50     |

|                                                         |               |                   |                |
|---------------------------------------------------------|---------------|-------------------|----------------|
| Yield, 3.20mm, injection molding                        | 64.0          | MPa               | ISO 527-2/50   |
| Fracture, 3.20mm, injection molding                     | 59.0          | MPa               | ISO 527-2/50   |
| Tensile Strain                                          |               |                   | ISO 527-2/50   |
| Yield, 3.20mm, injection molding                        | 6.3           | %                 | ISO 527-2/50   |
| Fracture, 3.20mm, injection molding                     | 110           | %                 | ISO 527-2/50   |
| Flexural Modulus (3.20 mm, Injection Molded)            | 2240          | MPa               | ISO 178        |
| Impact                                                  | Nominal Value | Unit              | Test Method    |
| Charpy Notched Impact Strength (23°C, Injection Molded) | 16            | kJ/m <sup>2</sup> | ISO 179/1eA    |
| Notched Izod Impact (23°C, Injection Molded)            | 13            | kJ/m <sup>2</sup> | ISO 180/A      |
| Thermal                                                 | Nominal Value | Unit              | Test Method    |
| Heat Deflection Temperature                             |               |                   |                |
| 0.45 MPa, not annealed                                  | 136           | °C                | ISO 75-2/B     |
| 1.8 MPa, not annealed                                   | 128           | °C                | ISO 75-2/A     |
| Vicat Softening Temperature                             |               |                   |                |
| --                                                      | 151           | °C                | ISO 306/A120   |
| --                                                      | 143           | °C                | ISO 306/B50    |
| Flammability                                            | Nominal Value | Unit              | Test Method    |
| Flame Rating                                            |               |                   | UL 94          |
| 1.0 mm <sup>1</sup>                                     | V-0           |                   | UL 94          |
| 2.5 mm <sup>2</sup>                                     | 5VB           |                   | UL 94          |
| 3.0 mm <sup>3</sup>                                     | 5VA           |                   | UL 94          |
| Glow Wire Flammability Index                            |               |                   | IEC 60695-2-12 |
| 1.0 mm <sup>4</sup>                                     | 800           | °C                | IEC 60695-2-12 |
| 1.5 mm <sup>5</sup>                                     | 960           | °C                | IEC 60695-2-12 |
| 2.0 mm <sup>6</sup>                                     | 960           | °C                | IEC 60695-2-12 |
| 3.0 mm <sup>7</sup>                                     | 960           | °C                | IEC 60695-2-12 |
| Glow Wire Ignition Temperature <sup>8</sup>             |               |                   | IEC 60695-2-13 |
| 1.0 mm                                                  | 825           | °C                | IEC 60695-2-13 |
| 1.5 mm                                                  | 825           | °C                | IEC 60695-2-13 |
| 2.0 mm                                                  | 825           | °C                | IEC 60695-2-13 |
| 3.0 mm                                                  | 825           | °C                | IEC 60695-2-13 |
| Optical                                                 | Nominal Value | Unit              |                |
| Transmittance                                           |               |                   |                |
| 1000 µm                                                 | 90.0          | %                 |                |
| 2000 µm                                                 | 88.0          | %                 |                |
| Injection                                               | Nominal Value | Unit              |                |
| Drying Temperature                                      | 120           | °C                |                |
| Drying Time                                             | 3.0 - 4.0     | hr                |                |
| Rear Temperature                                        | 280 - 300     | °C                |                |
| Middle Temperature                                      | 280 - 310     | °C                |                |

|                    |           |    |
|--------------------|-----------|----|
| Front Temperature  | 290 - 320 | °C |
| Nozzle Temperature | 290 - 320 | °C |
| Mold Temperature   | 60 - 100  | °C |

#### NOTE

|    |                                                                                                                      |
|----|----------------------------------------------------------------------------------------------------------------------|
| 1. | This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.    |
| 2. | This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.    |
| 3. | This rating is not intended to reflect the danger caused by this or any other material under actual fire conditions. |
| 4. | This rating is not intended to reflect the danger caused by this or any other material under actual fire conditions. |
| 5. | This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.    |
| 6. | This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.    |
| 7. | This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.    |
| 8. | This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.    |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT