

## **SIL65AA-895S**

## Orthophthalic Laminating Resin Technical Data Sheet

SIL65AA-895S is an unsaturated polyester laminating resin used in the manufacture of glass fiber reinforced composites. SIL65AA-895S is tinted with a blue indicator for color change with addition of initiator.

| FEATURES                          | BENEFITS                                   |
|-----------------------------------|--|
| Excellent Wetting of Glass Fibers | High strength properties in laminates      |
| Moderate Gel Time                 | Enables good line speeds                   |
| Low Laminate Exotherm             | Even cure throughout laminate              |
| Moderate Hardness Development     | Good cycle times and dimensional stability |

| RELATED PRODUCTS                   | GEL TIME      |  |  |
|------------------------------------|---------------|--|--|
| SIL65AA-895W                       | 8-12 Minutes  |  |  |
| SIL65AA-895 (initiated with DDM-9) | 13-18 Minutes |  |  |

| LIQUID PROPERTIES   | RESULTS               |  |  |  |  |
|---|-----------------------|--|--|--|--|
| Viscosity, Brookfield Model RV #2 Spindle @ 20 rpm, 77°F (25°C), cPs  | 400-600               |  |  |  |  |
| Thixotropic Index   | 2.75-3.5              |  |  |  |  |
| 100 grams resin @ 77°F (25°C), initiated with 1.12% M-30a by weight * |                       |  |  |  |  |
| Gel Time, min:sec   | 23:00-28:00           |  |  |  |  |
| Gel to Peak Exotherm Time, min:sec                                    | 15:00-20:00           |  |  |  |  |
| Peak Exotherm   | 250-300°F (121-149°C) |  |  |  |  |
| Non-Volatile Content, %   | 55.5-58.5             |  |  |  |  |
| Hazardous Air Pollutant (Styrene) Content, %                          | 41.5-44.5             |  |  |  |  |
| Specific Gravity  | 1.02-1.14             |  |  |  |  |

| 4/0 :                     |  |   |   |  |  |  |   |
|---------------------------|--|---|---|--|--|--|---|
| 1/8 inch (3.2 mm) Casting |  |   |   | 1/8 inch (3.2 mm) Laminate   |  |  |   |
| Not Applicable            |  |   |   | 4 Plies 1.5 oz/ft <sup>2</sup> , 33% Glass Mat   |  |  |   |
| 16,200                    | psi  | 112   | MPa   | 27,700   | psi  | 191  | MPa   |
| 5.79 x 10⁵                | psi  | 3,990   | MPa   | 12.3 x 10 <sup>5</sup>   | psi  | 8,510  | MPa   |
| 9,500                     | psi  | 66  | MPa   | 17,800   | psi  | 123  | MPa   |
| 5.90 x 10⁵                | psi  | 4,070   | MPa   | 13.1 x 10 <sup>5</sup>   | psi  | 9,007  | MPa   |
| 1.8                       | %  | 1.8   | %   | 1.8  | %  | 1.8  | %   |
| 42-46                     |  | 42-46   |   | 48-52  |  | 48-52  |   |
| 151                       | °F   | 66  | °C  |  | °F   |  | °C  |
|                           | 16,200<br>5.79 x 10 <sup>5</sup><br>9,500<br>5.90 x 10 <sup>5</sup><br>1.8<br>42-46<br>151 | 16,200 psi<br>5.79 x 10 <sup>5</sup> psi<br>9,500 psi<br>5.90 x 10 <sup>5</sup> psi<br>1.8 %<br>42-46<br>151 °F | 16,200     psi     112       5.79 x 10 <sup>5</sup> psi     3,990       9,500     psi     66       5.90 x 10 <sup>5</sup> psi     4,070       1.8     %     1.8       42-46     42-46       151     °F     66 | 16,200     psi     112     MPa       5.79 x 10 <sup>5</sup> psi     3,990     MPa       9,500     psi     66     MPa       5.90 x 10 <sup>5</sup> psi     4,070     MPa       1.8     %     1.8     %       42-46     42-46       151     °F     66     °C | 16,200         psi         112         MPa         27,700           5.79 x 10 <sup>5</sup> psi         3,990         MPa         12.3 x 10 <sup>5</sup> 9,500         psi         66         MPa         17,800           5.90 x 10 <sup>5</sup> psi         4,070         MPa         13.1 x 10 <sup>5</sup> 1.8         %         1.8         %         1.8           42-46         42-46         48-52           151         °F         66         °C | 16,200         psi         112         MPa         27,700         psi           5.79 x 10 <sup>5</sup> psi         3,990         MPa         12.3 x 10 <sup>5</sup> psi           9,500         psi         66         MPa         17,800         psi           5.90 x 10 <sup>5</sup> psi         4,070         MPa         13.1 x 10 <sup>5</sup> psi           1.8         %         1.8         %         1.8         %           42-46         42-46         48-52         —         °F           151         °F         66         °C         —         °F | 16,200         psi         112         MPa         27,700         psi         191           5.79 x 10 <sup>5</sup> psi         3,990         MPa         12.3 x 10 <sup>5</sup> psi         8,510           9,500         psi         66         MPa         17,800         psi         123           5.90 x 10 <sup>5</sup> psi         4,070         MPa         13.1 x 10 <sup>5</sup> psi         9,007           1.8         %         1.8         %         1.8         %         1.8           42-46         42-46         48-52         48-52         48-52 |

<sup>\*</sup> Gel time and reactivity will vary due to the type and concentration of Free Radical Initiator (catalyst), shop temperature, humidity, and type of fillers used. In order to meet your individual needs consult our technical sales representative for assistance.

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