# IDI SMC E-203

#### Thermoset, Unspecified

### **IDI Composites International**

### Message:

PRODUCT SERIES: E200 SERIES SMC

PRODUCT DESCRIPTION: UL YELLOW CARD SMC

Electrical applications requiring a composite material that possesses a UL Yellow card and flammability performance from UL94 HB, V-0 & 5VA. These materials can be found in Underwriters Laboratory file E53587.

| General Information                    |                                    |       |             |
|--|------------------------------------|-------|-------------|
| UL YellowCard                          | E53587-243390                      |       |             |
| Features                               | Flame Retardant                    |       |             |
| Uses                                   | Electrical/Electronic Applications |       |             |
| UL File Number                         | E53587                             |       |             |
| Forms                                  | SMC - Sheet Molding Compound       |       |             |
| Physical                               | Nominal Value                      | Unit  | Test Method |
| Specific Gravity                       | 1.70 to 1.90                       | g/cm³ | ASTM D792   |
| Bulk Factor                            | 1.0                                |       | ASTM D1895  |
| Molding Shrinkage - Flow               | 0.0 to 0.20                        | %     | ASTM D955   |
| Water Absorption (23°C, 24 hr)         | 0.0 to 0.20                        | %     | ASTM D570   |
| Hardness                               | Nominal Value                      | Unit  | Test Method |
| Barcol Hardness                        | 30 to 50                           |       | ASTM D2583  |
| Mechanical                             | Nominal Value                      | Unit  | Test Method |
| Tensile Strength                       | 55.2                               | MPa   | ASTM D638   |
| Flexural Modulus                       | 10300                              | MPa   | ASTM D790   |
| Flexural Strength                      | 124                                | MPa   | ASTM D790   |
| Compressive Strength                   | 165                                | MPa   | ASTM D695   |
| Impact                                 | Nominal Value                      | Unit  | Test Method |
| Notched Izod Impact                    | 430                                | J/m   | ASTM D256   |
| Thermal                                | Nominal Value                      | Unit  | Test Method |
| Deflection Temperature Under Load (1.8 |                                    |       |             |
| MPa, Unannealed)                       | > 260                              | °C    | ASTM D648   |
| Electrical                             | Nominal Value                      | Unit  | Test Method |
| Dielectric Strength                    | 16                                 | kV/mm | ASTM D149   |
| Arc Resistance                         | > 180                              | sec   | ASTM D495   |
| Flammability                           | Nominal Value                      | Unit  | Test Method |
| Flame Rating                           |                                    |       | UL 94       |
| 1.20 mm                                | V-0                                |       |             |
| 1.50 mm                                | V-0                                |       |             |
| 3.00 mm                                | V-0                                |       |             |

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#### 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

