

## SHD COMPOSITES - PRODUCT SELECTOR GUIDE



| Resin System  | Description   | Cure Temp (°C) | Cure Time (Hours)  | Outlife at 20°C (Days) | Tg Onset * (°C - DMA) | Tg Peak * (°C - DMA) | Service Temp * (°C) | Toughened | Cure                     | Application  |
|---|---|----------------|--------------------|------------------------|-----------------------|----------------------|---------------------|-----------|--------------------------|--|
| <b>TOOLING PREPREG - Low Temperature Cure</b>             |   |                |                    |                        |                       |                      |                     |           |                          |  |
| LTC102  | Carbon / Glass Tooling  | 30 - 65        | 45 - 5             | 3                      | 214                   | 232                  | 210                 | No        | Autoclave                | Lower Temperature Cure                                     |
| LTC210  | Carbon / Glass Tooling  | 45 - 70        | 40 - 4             | 4                      | 202                   | 221                  | 200                 | No        | Autoclave                | General Purpose  |
| LTC216  | Carbon / Glass Tooling  | 45 - 70        | 50 - 5             | 7                      | 218                   | 242                  | 210                 | No        | Autoclave                | General Purpose<br>Increased Outlife & Service Temperature |
| LTC410  | Long Outlife Tooling  | 65 - 80        | 16 - 4             | 21                     | 192                   | 218                  | 180                 | Yes       | Autoclave                | Extra Long Outlife   |
| LTC400  | Long Outlife Tooling  | 65 - 80        | 24 - 6             | 21                     | 207                   | 228                  | 200                 | No        | Autoclave                | Extra Long Outlife<br>Increased Service Temperature        |
| OTS65   | Oven Cure Tooling   | 65 - 90        | Consult Data Sheet | Up to 21               | 129                   | 143                  | 125                 | No        | Oven                     | Out of Autoclave Structures                                |
| BX180-220   | Benzoxazine Tooling   | 180            | 2                  | 12 months              | 229                   | 250                  | 200                 | No        | Autoclave                | High Temperature Aerospace                                 |
| <b>ADHESIVE FILM</b>                                      |   |                |                    |                        |                       |                      |                     |           |                          |  |
| MTFA500   | Adhesive Film   | 80 - 120       | 16 - 1             | 30                     | 141                   | 150                  | 135                 | Yes       | Autoclave                | General Purpose  |
| VTFA400   | Adhesive Film   | 65 - 120       | 16 - 1             | 21                     | 135                   | 147                  | 125                 | Yes       | Autoclave                | General Purpose<br>Lower Temperature Cure                  |
| <b>COMPONENT PREPREG - Low to Medium Temperature Cure</b> |   |                |                    |                        |                       |                      |                     |           |                          |  |
| LTC250-2XL  | Low Temp Cure   | 50 - 75        | 40 - 4             | 5                      | 130                   | 144                  | 125                 | Yes       | Autoclave / Oven         | General Purpose (Visual)<br>Lower Temperature Cure         |
| MTC510  | Med Temp Cure   | 80 - 120       | 16 - 1             | 30                     | 140                   | 148                  | 135                 | Yes       | Autoclave                | General Purpose (Visual)                                   |
| MTC275  | Med Temp Cure, Out of Autoclave                                     | 80 - 120       | 16 - 1             | 30                     | 121                   | 135                  | 115                 | Yes       | Autoclave / Oven         | General Purpose (Visual)<br>Out of Autoclave               |
| MTC475  | Med Temp Cure   | 80 - 120       | 16 - 1             | 30                     | 190                   | 206                  | 180                 | Yes       | Autoclave                | General Purpose (Visual)<br>High Service Temperature       |
| MTC811  | Med Temp Cure, Core Bondable  | 90 - 120       | 14 - 1             | 60                     | 121                   | 128                  | 115                 | Yes       | Autoclave                | General Purpose (Visual)<br>Increased Toughness            |
| MTC400  | Med Temp Cure   | 80 - 135       | 16 - 1             | 30                     | 227                   | 238                  | 220                 | Yes       | Autoclave                | Motorsport / Aerospace                                     |
| MTC400-1  | Med Temp Cure   | 80 - 135       | 16 - 1             | 30                     | 207                   | 224                  | 200                 | Yes       | Autoclave                | Motorsport / Aerospace                                     |
| <b>COMPONENT PREPREG - Versatile Temperature Cure</b>     |   |                |                    |                        |                       |                      |                     |           |                          |  |
| VTC401  | General Purpose, Fast Cure Component<br>Core Bondable               | 65 - 140       | 16 - 15 mins       | 21                     | 143                   | 151                  | 135                 | Yes       | Autoclave / Oven / Press | General Purpose (Visual)                                   |
| VTC410  | General Purpose, Fast Cure Component                                | 65 - 140       | 16 - 15 mins       | 21                     | 190                   | 206                  | 180                 | Yes       | Autoclave / Oven / Press | General Purpose<br>Increased Service Temperature           |
| VTC212  | Oven Component System   | 65 - 120       | 16 - 1             | 21                     | 135                   | 140                  | 130                 | Yes       | Oven                     | Out of Autoclave (Visual)                                  |
| OPS75   | Oven Panel System   | 65 - 130       | Consult Data Sheet | Up to 21               | 140                   | 160                  | 130                 | Yes       | Autoclave / Oven         | Body Panel   |
| APS75   | Autoclave Panel System  | 65 - 130       | Consult Data Sheet | 21                     | 170                   | 191                  | 160                 | Yes       | Autoclave                | Body Panel   |
| <b>COMPONENT PREPREG - High Service Temperature</b>       |   |                |                    |                        |                       |                      |                     |           |                          |  |
| HTC400  | High Temp Cure  | 180            | 2                  | 30                     | 263                   | 272                  | 255                 | Yes       | Autoclave                | Aerospace / Automotive                                     |
| CEM100  | Cyanate Ester, High Service Temp                                    | 120 - 135      | 3 - 2              | 21                     | 345                   | 400                  | 340                 | No        | Autoclave                | Aerospace / Motorsport                                     |
| CEM160  | Cyanate Ester, High Service Temp,<br>Available on UD reinforcements | 120 - 135      | 3 - 2              | Up to 21               | 275                   | 300                  | 270                 | No        | Autoclave                | Aerospace / Motorsport                                     |
| <b>COMPONENT PREPREG - Flame Retardant</b>                |   |                |                    |                        |                       |                      |                     |           |                          |  |
| FRVC411   | Flame Retardant, Core Bondable                                      | 65 - 120       | 16 - 1             | 21                     | 155                   | 176                  | 150                 | Yes       | Autoclave / Oven / Press | Flame Retardant, Aerospace / Rail                          |
| MTC510FRB   | Flame Retardant, Med Temp Cure                                      | 80 - 120       | 16 - 1             | 30                     | 130                   | 148                  | 125                 | Yes       | Autoclave                | Flame Retardant, General Purpose                           |
| PS200   | Flame Retardant, Bio-based  | 120 - 130      | 1.5 - 1            | 21                     | 350                   | 390                  | 300                 | No        | Autoclave / Oven / Press | Flame Retardant, Automotive / Electric Vehicles            |
| FR308   | Flame Retardant, Bio-based  | 120 - 130      | 1.5 - 1            | 21                     | 175                   | 240                  | 170                 | No        | Autoclave / Oven / Press | Flame Retardant, Aerospace / Rail                          |

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\*: Tg and service temperatures quoted in this Product Selector Guide are maximum values, possibly achieved after a post cure cycle depending on the product. Please consult Technical Data Sheets for details.  
SHD Composites continuously reviews and updates its Product Selector Guide and Technical Data Sheets. Please ensure that you have the current version, by contacting your SHD Composites sales contact and quoting the issue date.

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