

| Class     | Grade                | Type      | Cell Size   | Heat deflection<br>°C | Density<br>kg/m <sup>3</sup> | Compressive strength<br>MPa | Tensile strength<br>MPa | Shear strength<br>MPa | Elastic modulus<br>MPa | Shear modulus<br>MPa | Elongation at break<br>% |
|-----------|----------------------|-----------|-------------|-----------------------|------------------------------|-----------------------------|-------------------------|-----------------------|------------------------|----------------------|--------------------------|
| Structure | MT-Medium Temp       | 31 MT-FC  | Fine Cell   | 184                   | 32                           | 0.4                         | 1                       | 0.4                   | 33                     | 14                   | 3                        |
|           |                      | 51 MT-FC  | Fine Cell   | 184                   | 52                           | 0.9                         | 1.9                     | 0.8                   | 65                     | 22                   | 3                        |
|           |                      | 71 MT-FC  | Fine Cell   | 186                   | 75                           | 1.6                         | 2.3                     | 1.3                   | 90                     | 33                   | 3                        |
|           |                      | 110 MT-FC | Fine Cell   | 191                   | 110                          | 3.4                         | 3.4                     | 2.4                   | 152                    | 57                   | 3                        |
|           |                      | 31 MT-MC  | Medium cell | 184                   | 32                           | 0.4                         | 1                       | 0.4                   | 33                     | 14                   | 3                        |
|           |                      | 51 MT-MC  | Medium cell | 184                   | 52                           | 0.9                         | 1.9                     | 0.8                   | 65                     | 22                   | 3                        |
|           |                      | 71 MT-MC  | Medium cell | 186                   | 75                           | 1.6                         | 2.3                     | 1.3                   | 90                     | 33                   | 3                        |
|           |                      | 110 MT-MC | Medium cell | 191                   | 110                          | 3.4                         | 3.4                     | 2.4                   | 152                    | 57                   | 3                        |
|           |                      | 31 MT-CC  | Coarse Cell | 184                   | 32                           | 0.4                         | 1                       | 0.4                   | 33                     | 14                   | 3                        |
|           |                      | 51 MT-CC  | Coarse Cell | 184                   | 52                           | 0.9                         | 1.9                     | 0.8                   | 65                     | 22                   | 3                        |
|           |                      | 71 MT-CC  | Coarse Cell | 186                   | 75                           | 1.6                         | 2.3                     | 1.3                   | 90                     | 33                   | 3                        |
|           |                      | 110 MT-CC | Coarse Cell | 191                   | 110                          | 3.4                         | 3.4                     | 2.4                   | 152                    | 57                   | 3                        |
|           | HT-High Temp         | 51 HT-FC  | Fine Cell   | 213                   | 52                           | 0.8                         | 1.6                     | 0.8                   | 72                     | 22                   | 5                        |
|           |                      | 71 HT-FC  | Fine Cell   | 217                   | 75                           | 1.7                         | 2.2                     | 1.3                   | 101                    | 40                   | 5                        |
|           |                      | 110 HT-FC | Fine Cell   | 222                   | 110                          | 3.7                         | 4.3                     | 2.5                   | 180                    | 76                   | 5                        |
|           |                      | 51 HT-MC  | Medium cell | 213                   | 52                           | 0.8                         | 1.6                     | 0.8                   | 72                     | 22                   | 3                        |
|           |                      | 71 HT-MC  | Medium cell | 217                   | 75                           | 1.7                         | 2.2                     | 1.3                   | 101                    | 40                   | 3                        |
|           |                      | 110 HT-MC | Medium cell | 222                   | 110                          | 3.7                         | 4.3                     | 2.5                   | 180                    | 76                   | 3                        |
|           |                      | 51 HT-CC  | Coarse Cell | 213                   | 52                           | 0.8                         | 1.6                     | 0.8                   | 72                     | 22                   | 3                        |
|           |                      | 71 HT-CC  | Coarse Cell | 217                   | 75                           | 1.7                         | 2.2                     | 1.3                   | 101                    | 40                   | 3                        |
|           |                      | 110 HT-CC | Coarse Cell | 222                   | 110                          | 3.7                         | 4.3                     | 2.5                   | 180                    | 76                   | 3                        |
|           |                      | 200 HT-CC | Coarse Cell | 225                   | 205                          | 9.3                         | 6.9                     | 5                     | 358                    | 151                  | 3                        |
|           | UT-Ultra High Temp   | 71 UT-FC  | Fine Cell   | 240                   | 75                           | 1.7                         | 2.3                     | 1.4                   | 103                    | 43                   | 3                        |
|           |                      | 110 UT-FC | Fine Cell   | 243                   | 110                          | 3.6                         | 3.9                     | 2.4                   | 181                    | 68                   | 3                        |
|           |                      | 71 UT-MC  | Medium cell | 240                   | 75                           | 1.7                         | 2.3                     | 1.4                   | 103                    | 43                   | 3                        |
|           |                      | 110 UT-MC | Medium cell | 243                   | 110                          | 3.6                         | 3.9                     | 2.4                   | 181                    | 68                   | 3                        |
|           |                      | 71 UT-CC  | Coarse Cell | 240                   | 75                           | 1.7                         | 2.3                     | 1.4                   | 103                    | 43                   | 3                        |
|           |                      | 110 UT-CC | Coarse Cell | 243                   | 110                          | 3.6                         | 3.9                     | 2.4                   | 181                    | 68                   | 3                        |
| Function  | WP-Wave Permeability | 31 WP     |             | 185                   | 32                           | 0.4                         | 1.1                     | 0.4                   | 34                     | 14                   | 5                        |
|           |                      | 51 WP     |             | 186                   | 52                           | 1                           | 2                       | 0.8                   | 71                     | 21                   | 4                        |
|           |                      | 71 WP     |             | 188                   | 75                           | 1.8                         | 3.1                     | 1.4                   | 99                     | 36                   | 4                        |
|           | WA-Wave Absorbing    | 71 WA     |             | 180                   | 75                           | 1.7                         | 2.2                     | 1.4                   | 105                    | 42                   | 4                        |
|           |                      | 150 WA    |             | 180                   | 150                          | 3.6                         | 3.7                     | 2.1                   | 180                    | 63                   | 4                        |
|           | FR-Flame Retardant   | 51 FR     |             | 185                   | 52                           | 0.7                         | 1.2                     | 0.6                   | 48                     | 22                   | 3.5                      |
|           |                      | 71 FR     |             | 185                   | 75                           | 1.6                         | 2.2                     | 1.2                   | 88                     | 36                   | 3.5                      |
|           |                      | 110 FR    |             | 185                   | 110                          | 2.9                         | 3.4                     | 2.2                   | 146                    | 58                   | 3.5                      |
|           | IR-Impact Resistant  | 71 IR     |             | 205                   | 75                           | 1.3                         | 3.6                     | 1.3                   | 115                    | 29                   | 8                        |
|           |                      | 110 IR    |             | 202                   | 110                          | 2.9                         | 5.7                     | 2.3                   | 197                    | 52                   | 8                        |

Medium Tem : HDT 180°C

Hlgh Temp : HDT 200°C

Ultra Hlgh Temp : HDT 240°C

The poisson ratio of ARCHCELL<sup>®</sup> is from 0.37 to 0.38 (23°C) , above is typical value.

