

## G11 Epoxy Sheet Properties Data Sheet

| NO. | PROPERTIES  | UNIT              | STANDARD VALUE            | TESTING              |
|-----|---|-------------------|---------------------------|----------------------|
|     |   |                   |                           | RESULT               |
| 1   | Flexural strength perpendicular to laminations                            | MPa               | $\geq 350$                | 457                  |
|     | A: Under normal conditions  |                   | $\geq 207$                | 230                  |
|     | E-1/150: Under 150 $\pm$ 5 $^{\circ}$ C                                   |                   |                           |                      |
| 2   | Notch Impact strength parallel to lamination (charpy)                     | kJ/m <sup>2</sup> | $\geq 37$                 | 61                   |
| 3   | Dielectric strength perpendicular to lamination                           | kV/mm             | $\geq 11.8$               | 17.8                 |
|     | (in oil 90 $\pm$ 2 $^{\circ}$ C) 2.0mm in thickness                       |                   |                           |                      |
| 4   | Breakdown voltage parallel to lamination (in oil 90 $\pm$ 2 $^{\circ}$ C) | kV                | $\geq 45$                 | >70                  |
| 5   | 50 Hz dielectric coefficient  | -                 | $\leq 5.5$                | 4.23                 |
| 6   | 50 Hz loss factor   | -                 | $\leq 0.04$               | 0.021                |
| 7   | Water absorption rate D-24/23, 1.6mm in thickness                         | %                 | $\leq 0.25$               | 0.06                 |
| 8   | Insulation resistance impregnated in water, D-24/23                       | $\Omega$          | $\geq 5.0 \times 10^{10}$ | $2.8 \times 10^{11}$ |
| 9   | Bonding strength  | N                 | $\geq 6500$               | 8216                 |
| 10  | Density   | g/cm <sup>3</sup> | 1.70-1.90                 | 1.89                 |

**Statement:**

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Energetic will not provide any legally binding guarantee of certain properties, or any suitability.