



Neftec C/C Composite Data - 2023

| Material Grade | | | PC70 | PC70H | PC30 | PC40 |
|--------------------------------------------------|-------------|---------------------|------------------------|------------------------|------------------------|--------------------------|
| Fiber Direction / Length | | | Short/Random Pan Fibre | Short/Random Pan Fibre | Short/Random Pan Fibre | Short/Random Pitch Fibre |
| Bulk Density | | g/cm ³ | 1.65 | 1.7+ | 1.65 | 1.65 |
| Flexural Strength | | MPa | 200 | 220 | 180 | 180 |
| Tensile Strength | | MPa | 120 | 145 | 120 | 160 |
| Youngs Modulus | | Gpa | 45 | 50 | 45 | 75 |
| Compressive Strength | | MPa | 120 | 200+ | 110 | 190 |
| Interlaminar Shear Strength | | MPa | 18 | 19+ | 16 | 16 |
| Coefficient of Thermal Expansion (RT-1300C) | ∥ | 10 ⁻⁶ /C | 1.0 | 1.0 | 1.0 | 0.3 |
| | ⊥ | | 10.4 | 10.4 | 10.4 | 10.6 |
| Thermal Conductivity | ∥(X/Y Axis) | W/m • K | 35 | 35 | 100 | 130 |
| | ⊥(Z Axis) | | 12 | 12 | 20 | 29 |
| Specific Heat | 20C | J/Kg • K | 720 | 720 | 720 | 740 |
| Electrical Resistivity | | μΩcm | 2000 | 1800 | 1400 | 1200 |
| Charpy Impact Strength | | KJ/m2 | 20 | 20 | 20 | 20 |
| Shore Hardness | | | 75 | 75 | 70 | 75 |
| Temperature rating | | °C | 2000 | 2000 | 2400 | 2400 |

Note: Information provided is average value only and not guaranteed.

| Sizes | | PC70 | PC70H | PC30 | PC40 |
|------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------|-------|------|------|
| Standard production dimensions | Standard Stocked Thicknesses | Grade size and thickness availability | | | |
| 500 x 2000 or 500 x 1000 | 31mm to 120-130mm | Yes | Yes | Yes | NA |
| 1000 x 1000 | 1.2mm to 41mm | Yes | Yes | Yes | Yes |
| 1220 x 1220 | 1.2 mm to 30mm | Yes | Yes | Yes | NA |
| 2000 x 1220 | 1.2 mm to 30mm | Yes | Yes | Yes | NA |
| 2000 x 1120 | 1.2mm to 41mm | Yes | Yes | Yes | NA |
| 2000 x 1000 | 1.2mm to 41mm | Yes | Yes | No | Yes |
| Special order sizes | | | | | |
| 2000 x 1000 * Outside dim reduced by 10mm by every 5t increment. For example 46t - 1990 x 990 | 41mm to 100MM | Yes | Yes | Yes | Yes |
| 2000 x 1120 * Outside dim reduced by 10mm by every 5t increment. For example 46t - 1990 x 1110 | 41mm to 100MM | Yes | Yes | Yes | NA |
| 2000 x 1300* These plates are subject to additional grinding charges | 1.2mm to 20mm | Yes | Yes | Yes | NA |
| 2000 x 1800* These plates are subject to additional grinding charges | 5mm to 30mm | Yes | Yes | Yes | NA |
| 2000 x 2000* These plates are subject to additional grinding charges | 2mm - 20mm | Yes | Yes | Yes | NA |

Note: Sizes listed are stock sizes and for reference. For customer sizes please email: info@neftec.jp

Notes and Recommend Use

| Standard production dimensions | Thicknesses | Material Grade | | | |
|--------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sizes in Metric | | PC70 | PC70H | PC30 | PC40 |
| 420 x 2000 | 31mm to 90mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that requires further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | Rated at 2400°C. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. | NA |
| 1000 x 1000 | 1mm to 31mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that requires further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | Rated at 2400°C. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. | Rated at 2400°C with high flexural strength. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Robotics Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. |

| | | | | | |
|----------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1120 x 1120 | 1.2mm to 20mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that requires further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | Rated at 2400°C. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. | Rated at 2400°C with high flexural strength. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Robotics Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. |
| 1280 x 1280 | 2mm to 13mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that requires further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | Rated at 2400°C. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. | Rated at 2400°C with high flexural strength. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Robotics Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. |
| 2000 x 1000 | 0.6mm to 30mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that requires further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | Special order | Special order |
| 2000 x 1000 | 2mm to 6mm | NA | NA | NA | NA |
| 2000 x 1000 | 0.6/0.8mm to 5mm | NA | NA | NA | NA |
| Special order sizes | | | | | |
| 250 x 2200 | 75mm to 90mm | C/C Rollers - Steel Industry Applications | C/C Rollers - Steel Industry Applications | C/C Rollers - Steel Industry Applications, PECV, LED, Silicon Ingot pots/covers | NA |
| 1000 x 500 | 31mm to 80mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fixtures, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that require further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | C/C Rollers - Steel Industry Applications, PECV, LED, Silicon Ingot pots/covers | NA |
| 1000 x 1000 | 26mm to 31mm | General purpose for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fixtures, Structural, PECVD and Load bearing. | High density and strength suited for Heat-treatment that require further strength. Ideal for precision machining, PECVD, load bearing, high strength nuts/bolts and hot-press dies. | Rated at 2400°C. Ideal for all high-temperature applications, Including Machined products (threads/nuts), Jigs, Fans, Fixtures, Trays, Structural, PECVD, Heating Elements. | Special order |
| 1000 x 1000 | 0.6/0.8mm only | NA | NA | Furnace lining, Insulation protection, trays Only available in 2-6mm thickness. | NA |

Note: Sizes listed are stock sizes and for reference. For customer sizes please email: info@neftec.jp