# DECLARATION OF PERFORMANCE

Manufacturer: Mentakab Veneer and Plywood Sdn. Bhd.
5th. Mile, Jalan Karak, 28400 Mentakab, Pahang, Malaysia
Contact Person: Low Eng Chin

Ref No: MVP-DoP-001

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|---|---|
| **PRODUCT TYPE** | Phenol Formaldehyde bonded hardwood plywood |
| **INTENDED USE** | Structural Plywood in external condition (EN636-3 S),<br>Structural Plywood in internal humid condition (EN636-2 S),<br>Structural Plywood in internal dry condition (EN636-1 S),<br>All with formaldehyde class E1 |

**DECLARED PERFORMANCE**

| Characteristics | | BS Standard | Performance (according to thickness) | | | |
|---|---|---|---|---|---|---|
| | | | 3.6 mm | 4.0 mm | 5.5 mm | 6.0 mm |
| Bending Strength (MOR) | $F_m 0$ | EN 310 | F40 - min 60 N/mm$^2$ | F30 - min 45 N/mm$^2$ | F30 - min 45 N/mm$^2$ | F20 - min 30 N/mm$^2$ |
| | $F_m 90$ | | F20 - min 30 N/mm$^2$ | F15 - min 23 N/mm$^2$ | F20 - min 30 N/mm$^2$ | F15 - min 23 N/mm$^2$ |
| Modulus of Elasticity (MOE) | $E_m 0$ | EN 310 | E60 - min 6000 N/mm$^2$ | E70 - min 7000 N/mm$^2$ | E60 - min 6000 N/mm$^2$ | E30 - min 3000 N/mm$^2$ |
| | $E_m 90$ | | E10 - min 1000 N/mm$^2$ | E15 - min 1500 N/mm$^2$ | E25 - min 2500 N/mm$^2$ | E15 - min 1500 N/mm$^2$ |
| Bonding Quality | | EN 314-1<br>EN 314-2 | 1.71 N/mm$^2$ | 1.52 N/mm$^2$ | 1.23 N/mm$^2$ | 1.06 N/mm$^2$ |
| Moisture Content | | EN 322 | 8% - 12% | | | |
| Density | | EN 323 | min 400 kg/m$^3$ | | | |
| Release of Formaldehyde | | EN 13986 Annex B | Use phenolic glue, therefore conform to Class E1 | | | |
| Reaction to Fire | | EN 13986 Table 8 | NPD | | | |
| Water Vapour Permeability | | EN 13986 Table 9 | Based on the density above, declared Vapour Resistance Factor: Wet Cup = 70 $\mu$ , Dry Cup = 200 $\mu$ | | | |
| Thermal Conductivity | | EN 13986 Table 11 | Based on the density above, declared Thermal Conductivity = 0.13 W/m K | | | |

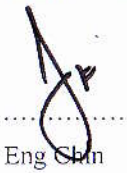
| Characteristics | | BS Standard | Performance (according to thickness) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 9 mm | 12 mm | 15 mm | 18 mm | 22 mm | 25 mm |
| Bending Strength (MOR) | $F_m 0$ | EN 310 | F20 - min 30 N/mm$^2$ | F15 - min 23 N/mm$^2$ | F15 - min 23 N/mm$^2$ | F15 - min 23 N/mm$^2$ | F10 - min 15 N/mm$^2$ | F5 - min 8 N/mm$^2$ |
| | $F_m 90$ | | F25 - min 38 N/mm$^2$ | F20 - min 30 N/mm$^2$ | F15 - min 23 N/mm$^2$ | F25 - min 38 N/mm$^2$ | F30 - min 45 N/mm$^2$ | F20 - min 30 N/mm$^2$ |
| Modulus of Elasticity (MOE) | $E_m 0$ | EN 310 | E30 - min 3000 N/mm$^2$ | E30 - min 3000 N/mm$^2$ | E30 - min 3000 N/mm$^2$ | E40 - min 4000 N/mm$^2$ | E25 - min 2500 N/mm$^2$ | E10 - min 1000 N/mm$^2$ |
| | $E_m 90$ | | E30 - min 3000 N/mm$^2$ | E40 - min 4000 N/mm$^2$ | E20 - min 2000 N/mm$^2$ | E40 - min 4000 N/mm$^2$ | E40 - min 4000 N/mm$^2$ | E30 - min 3000 N/mm$^2$ |
| Bonding Quality | | EN 314-1<br>EN 314-2 | 1.90 N/mm$^2$ | 1.44 N/mm$^2$ | 2.06 N/mm$^2$ | 1.72 N/mm$^2$ | 1.55 N/mm$^2$ | 1.69 N/mm$^2$ |
| Moisture Content | | EN 322 | 8% - 12% | | | | | |
| Density | | EN 323 | min 400 kg/m$^3$ | | | | | |
| Release of Formaldehyde | | EN 13986 Annex B | Use phenolic glue, therefore conform to Class E1 | | | | | |
| Reaction to Fire | | EN 13986 Table 8 | Based on the density above, declared as Class D-s2, d0 | | | | | |
| Water Vapour Permeability | | EN 13986 Table 9 | Based on the density above, declared Vapour Resistance Factor: Wet Cup = 70 μ , Dry Cup = 200 μ | | | | | |
| Thermal Conductivity | | EN 13986 Table 11 | Based on the density above, declared Thermal Conductivity = 0.13 W/m K | | | | | |

The performance of the product identified is in conformity with the declared performance.

This declaration of performance is issued under the sole responsibility of the manufacturer identified above.

This document should be read in conjunction with the Certificate of Conformity of FPC No. 1224-CPD-0100

Manufacture's Signatory and Stamp



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Low Eng Chin