DECLARATION OF PERFORMANCE (DOP)
NO : 01/KB/I/2014 (EXT)

1. Unique identification code of the product : Structural plywood
2. Type and batch number : Indonesian Hardwood Plywood, External gluing quality
3. Intended Use : External dry conditions as srtuctural components,
   Emission class E1
4. Manufacturer : PT.Balikpapan Forest Industries, Penajam Paser Utara
   East Kalimantan, Indonesia
5. System or system of assessment and verification of constancy of performance:2+
6. Name and identification number of the notified body :
   BM TRADA Certification Ltd. (Identification no:1224)
   Stocking Lane,hughenden Valley,
   High wycombe,Bucks,HP14 4ND,UK

   Notified Factory Production Control Body 1224,performed initial inspection of the manufacturing plant and of factory production control,continuous surveillance,assessment and evalution of factory production control and issued the certificate of conformity of the factory production control under system 2+ and issued the certificate of the conformity of the factory production control : 1224-CPR-0027

7. Declared performance (1)

Essential Characteristics	performance						Harmonised Technical Specification
	Thickness (mm)						
	4.0	6.0	8.0	9.0	12.0	15.0	
Mean of bending strength							EN 310 : 1993
$0^{\circ}(N/mm^2)$	F70	F40	F40	F30	F40	F30	
$90^{\circ}(N/mm^2)$	F30	F40	F30	F30	F30	F40	
Mean of modulus of elasticity							EN 310 : 1993
$0^{\circ}(N/mm^2)$	E140	E90	E80	E50	E90	E60	
$90^{\circ}(N/mm^2)$	E25	E80	E60	E50	E60	E70	
Mean of bonding quality(N/mm^2)	1.66	1.50	1.65	1.69	1.67	1.67	EN 314-1:2004
Mean of moisture content(%)	9.5	9.5	9.5	9.5	9.8	9.6	EN 322 : 1993
Mean of density(Kg/m^3)	609	619	674	686	686	690	EN 323 : 1993
Durability (moisture resistance)	NPD	NPD	NPD	NPD	NPD	NPD	-
Release of formaldehyde	E1	E1	E1	E1	E1	E1	EN 717-2:1994
Reaction of fire	NPD	NPD	NPD	D-s2,d0	D-s2,d0	D-s2,d0	EN 13986:2004 Tabel 8
water vapour permeability							EN 13986:2004 Tabel 9
Wet cup (μ)	70	70	70	70	70	70	
Dry cup (μ)	200	200	200	200	200	200	
Sound absorption							EN 13986:2004 Tabel 10
250-500Hz	0.10	0.10	0.10	0.10	0.10	0.10	
1000-2000Hz	0.30	0.30	0.30	0.30	0.30	0.30	
Thermal conductivity(W/(m.k))	0.13	0.13	0.13	0.13	0.13	0.13	EN 13986:2004 Tabel 11
Strength and stiffness for structural use	NPD	NPD	NPD	NPD	NPD	NPD	-
Mechanical durability	NPD	NPD	NPD	NPD	NPD	NPD	-
Biological durability	NPD	NPD	NPD	NPD	NPD	NPD	-
content of pentachlorophenol	NPD	NPD	NPD	NPD	NPD	NPD	-

7. Declared performance (2)

Essential Characteristics	performance					Harmonised Technical Specification
	Thickness (mm)					
	18.0	21.0	24.0	27.0	30.0	
Mean of bending strength						EN 310 : 1993
$0^{\circ}(N/mm^2)$	F40	F30	F30	F25	F30	
$90^{\circ}(N/mm^2)$	F40	F40	F50	F30	F40	
Mean of modulus of elasticity						EN 310 : 1993
$0^{\circ}(N/mm^2)$	E80	E70	E60	E50	E70	
$90^{\circ}(N/mm^2)$	E60	E100	E100	E70	E100	
Mean of bonding quality(N/mm^2)	1.60	1.65	1.59	1.61	1.64	EN 314-1:2004
Mean of moisture content(%)	9.8	10.5	9.2	10.2	10.3	EN 322 : 1993
Mean of density(Kg/m^3)	696	722	733	737	741	EN 323 : 1993
Durability (moisture resistance)	NPD	NPD	NPD	NPD	NPD	-
Release of formaldehyde	E1	E1	E1	E1	E1	EN 717-2:1994
Reaction of fire	D-s2,d0	D-s2,d0	D-s2,d0	D-s2,d0	D-s2,d0	EN 13986:2004 Tabel 8
water vapour permeability						EN 13986:2004 Tabel 9
Wet cup (μ)	70	90	90	90	90	
Dry cup (μ)	200	220	220	220	220	
Sound absorption						EN 13986:2004 Tabel 10
250-500Hz	0.10	0.10	0.10	0.10	0.10	
1000-2000Hz	0.30	0.30	0.30	0.30	0.30	
Thermal conductivity(W/(m.k))	0.13	0.17	0.17	0.17	0.17	EN 13986:2004 Tabel 11
Strength and stiffness for structural use	NPD	NPD	NPD	NPD	NPD	-
Mechanical durability	NPD	NPD	NPD	NPD	NPD	-
Biological durability	NPD	NPD	NPD	NPD	NPD	-
content of pentachlorophenol	NPD	NPD	NPD	NPD	NPD	-

8. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 7. This declaration of performance id issued under the sole responsibility of the manufacturer identified in point 4.

Jenebora, January 19, 2014

Acknowledged by

Oh Sang Eob
Management Representative

Prepared by

Lee Byeong Ryong
OQ Manager