

亞洲夾板有限公司  
**ASIA PLYWOOD COMPANY SDN. BHD.**



Company No : 196401000353 (5653-H)  
 Plot 35-38 , Kawasan Perusahaan Bukit Selambau,  
 P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.

HOUSE BRAND  
 CHAP RUMAH

PLYWOOD & VENEERS Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

DECLARATION OF PERFORMANCE (DOP)				Document Number: 4.0mm-DOP-UKCA-MRN		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 4.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as non structural component in exterior conditions EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 4	EN 314-2 Class 3	UKCA Mark:	UK 0836
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH

\* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Durability against ageing (Bending strength)	$F_{m,0}$ Class F30 $F_{m,90}$ Class F25	EN 310:1993
	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ Class E60 $E_{m,90}$ Class E30	
2)	Bonding Quality i) Pretreatment 5.1.1 ii) Pretreatment 5.1.4	Average = 1.256 N/mm <sup>2</sup> Average = 1.031 N/mm <sup>2</sup>	EN 314-1:2004 EN 314-2:1993
3)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 319:1993
4)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 317:1993
5)	Durability (Moisture resistance)	Exterior Conditions	EN 314-2:1993
6)	Release of formaldehyde	E1	EN 13986 - Annex B
7)	Reaction to fire	NPD	EN 13986 - Table 8
8)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
9)	Airbone sound insulation (R) (Frequency range of 1kHz - 3kHz)	NPD (Surface mass < 5 kg/m <sup>2</sup> )	EN 13986 - clause 5.10
10)	Sound absorption	Frequency range 250 Hz to 500 Hz	EN 13986 - clause 5.11 - Table 10
		Frequency range 1000 Hz to 2000 Hz	
11)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
12)	Biological durability	Use Class 3 (UC 3)	EN 335:2013
13)	Content of pentachlorophenol	$\leq 5$ ppm	EN 13986 - Clause 5.18

Item (7) and (8) - Value declared based on density results.

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME:

TITLE:

MIKE CHONG LEE CHUIN  
 QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

亞洲夾板有限公司  
**ASIA PLYWOOD COMPANY SDN. BHD.**



Company No : 196401000353 (5653-H)  
 Plot 35-38 , Kawasan Perusahaan Bukit Selambau,  
 P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.

HOUSE BRAND  
 CHAP RUMAH

PLYWOOD & VENEERS - Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

DECLARATION OF PERFORMANCE (DOP)				Document Number: 6.0mm-DOP-UKCA-MRN		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 6.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as non structural component in exterior conditions EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 4	EN 314-2 Class 3	UKCA Mark:	UK 0836
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH

\* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Durability against ageing (Bending strength)	$F_{m,0}$ $F_{m,90}$	EN 310:1993
	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ $E_{m,90}$	
2)	Bonding Quality	i) Pretreatment 5.1.1 Average = 1.356 N/mm <sup>2</sup>	EN 314-1:2004
		ii) Pretreatment 5.1.4 Average = 1.134 N/mm <sup>2</sup>	EN 314-2:1993
3)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 319:1993
4)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 317:1993
5)	Durability (Moisture resistance)	Exterior Conditions	EN 314-2:1993
6)	Release of formaldehyde	E1	EN 13986 - Annex B
7)	Reaction to fire	NPD	EN 13986 - Table 8
8)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
9)	Airborne sound insulation (R) (Frequency range of 1kHz ~ 3kHz)	NPD (Surface mass < 5 kg/m <sup>2</sup> )	EN 13986 - clause 5.10
10)	Sound absorption	Frequency range 250 Hz to 500 Hz	EN 13986 - clause 5.11 - Table 10
		Frequency range 1000 Hz to 2000 Hz	
11)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
12)	Biological durability	Use Class 3 (UC 3)	EN 335:2013
13)	Content of pentachlorophenol	$\leq 5$ ppm	EN 13986 - Clause 5.18

Item (7) and (8) - Value declared based on density results.

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME:

TITLE:

MIKE CHONG LEE CHUN  
 QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

亞洲夾板有限公司  
**ASIA PLYWOOD COMPANY SDN. BHD.**



Company No : 196401000353 (5653-H)  
 Plot 35-38 , Kawasan Perusahaan Bukit Sekambau,  
 P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.

HOUSE BRAND  
 CHAP RUMAH

PLYWOOD & VENEERS · Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

DECLARATION OF PERFORMANCE (DOP)				Document Number: 9.0mm-DOP-UKCA-MRN		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 9.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as structural component in exterior conditions. EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 2+	EN 314-2 Class 3	UKCA Mark:	UK 0836
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH
* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.						

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Bending strength	$F_{m,0}$ $F_{m,90}$	EN 310:1993
2)	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ $E_{m,90}$	
3)	Bonding Quality	Average = 1.555 N/mm <sup>2</sup> Average = 1.217 N/mm <sup>2</sup>	EN 314-1:2004 EN 314-2:1993
4)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 319:1993
5)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 317:1993
6)	Durability (Moisture resistance)	Exterior Conditions	EN 314-2:1993
7)	Release of formaldehyde	E1	EN 13986 - Annex B
8)	Reaction to fire	D-s2, d0	EN 13986 - Table 8
9)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
10)	Airbone sound insulation (R) (Frequency range of 1kHz - 3kHz)	22.5 dB	EN 13986 - clause 5.10
11)	Sound absorption	Frequency range 250 Hz to 500 Hz Frequency range 1000 Hz to 2000 Hz	0.10 0.30
12)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
13)	Strength and stiffness for structure use	NPD	EN 636:2012+A1:2015
14)	Mechanical durability	$K_{mod}$ 0.55 , $K_{def}$ 2.50	EN 1995-1-1 - Table 3.1 & 3.2
15)	Biological durability	Use Class 3 (UC 3)	EN 335:2013
16)	Content of pentachlorophenol	$\leq$ 5 ppm	EN 13986 - Clause 5.18
17)	Racking resistance	NPD	EN 594:1996
18)	Embedment strength	NPD	EN 383:1993

Item (7), (8) and (10) - Value declared based on density results

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME: MIKE CHONG LEE CHUIN

TITLE: QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

亞洲夾板有限公司  
**ASIA PLYWOOD COMPANY SDN. BHD.**



Company No : 196401000353 (5653-H)  
 Plot 35-38 , Kawasan Perusahaan Bukit Selambau,  
 P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.

HOUSE BRAND  
 CHAP RUMAH

PLYWOOD & VENEERS · Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

DECLARATION OF PERFORMANCE (DOP)				Document Number: 12.0mm-DOP-UKCA-MRN		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 12.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as structural component in exterior conditions. EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 2+	EN 314-2 Class 3	UKCA Mark: Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	UK 0836 HFB Engineering GmbH
* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.						

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Bending strength	$F_{m,0}$ $F_{m,90}$	EN 310:1993
2)	Bending stiffness (Modulus of Elasticity)	Class F25 Class F30 $E_{m,0}$ $E_{m,90}$	
3)	Bonding Quality	i) Pretreatment 5.1.1 ii) Pretreatment 5.1.4	Average = 1.159 N/mm <sup>2</sup> Average = 0.982 N/mm <sup>2</sup> EN 314-1:2004 EN 314-2:1993
4)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 319:1993
5)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 317:1993
6)	Durability (Moisture resistance)	Exterior Conditions	EN 314-2:1993
7)	Release of formaldehyde	E1	EN 13986 - Annex B
8)	Reaction to fire	D-s2, d0	EN 13986 - Table 8
9)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
10)	Airbone sound insulation (R) (Frequency range of 1kHz - 3kHz)	24.12 dB	EN 13986 - clause 5.10
11)	Sound absorption	Frequency range 250 Hz to 500 Hz Frequency range 1000 Hz to 2000 Hz	0.10 0.30 EN 13986 - clause 5.11 - Table 10
12)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
13)	Strength and stiffness for structure use	NPD	EN 636:2012+A1:2015
14)	Mechanical durability	$K_{rad}$ 0.55 , $K_{ref}$ 2.50	EN 1995-1-1 - Table 3.1 & 3.2
15)	Biological durability	Use Class 3 (UC 3)	EN 335:2013
16)	Content of pentachlorophenol	$\leq 5$ ppm	EN 13986 - Clause 5.18
17)	Racking resistance	NPD	EN 594:1996
18)	Embedment strength	NPD	EN 383:1993

Item (7), (8) and (10) - Value declared based on density results

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME:

TITLE:

MIKE CHONG LEE CHUI  
 QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

# 亞洲夾板有限公司 ASIA PLYWOOD COMPANY SDN. BHD.



Company No : 196401000353 (5653-H)  
Plot 35-38, Kawasan Perusahaan Bukit Selambau,  
P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.

HOUSE BRAND  
CHAP RUMAH

PLYWOOD & VENEERS Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

DECLARATION OF PERFORMANCE (DOP)				Document Number: 15.0mm-DOP-UKCA-MRN		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 15.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as structural component in exterior conditions. EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 2+	EN 314-2 Class 3	UKCA Mark:	UK 0636
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH

\* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Bending strength	$F_{m,0}$ $F_{m,90}$	EN 310:1993
2)	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ $E_{m,90}$	
3)	Bonding Strength	i) Pretreatment 5.1.1 Average = 1.565 N/mm <sup>2</sup> ii) Pretreatment 5.1.4 Average = 1.305 N/mm <sup>2</sup>	EN 314-1:2004 EN 314-2:1993
4)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 319:1993
5)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 317:1993
6)	Durability (Moisture resistance)	Exterior Conditions	EN 314-2:1993
7)	Release of formaldehyde	E1	EN 13986 - Annex B
8)	Reaction to fire	D-s2, d0	EN 13986 - Table 8
9)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
10)	Airbone sound insulation (R) (Frequency range of 1kHz ~ 3kHz)	25.38 dB	EN 13986 - clause 5.10
11)	Sound absorption	Frequency range 250 Hz to 500 Hz 0.10 Frequency range 1000 Hz to 2000 Hz 0.30	EN 13986 - clause 5.11 - Table 10
12)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
13)	Strength and stiffness for structure use	NPD	EN 636:2012+A1:2015
14)	Mechanical durability	$K_{mod}$ 0.55, $K_{def}$ 2.50	EN 1995-1-1 - Table 3.1 & 3.2
15)	Biological durability	Use Class 3 (UC 3)	EN 335:2013
16)	Content of pentachlorophenol	≤ 5 ppm	EN 13986 - Clause 5.18
17)	Racking resistance	NPD	EN 594:1996
18)	Embedment strength	NPD	EN 383:1993

Item (7), (8) and (10) - Value declared based on density results

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME:

TITLE:

MIKE CHONG LEE CHUI

QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

亞洲夾板有限公司  
**ASIA PLYWOOD COMPANY SDN. BHD.**



Company No : 196401000353 (5653-H)  
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 P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.

HOUSE BRAND  
 CHAP RUMAH

PLYWOOD & VENEERS · Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

DECLARATION OF PERFORMANCE (DOP)				Document Number: 18.0mm-DOP-UKCA-MRN		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 18.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as structural component in exterior conditions. EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 2+	EN 314-2 Class 3	UKCA Mark:	UK 0636
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH

\* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.

### Declared Performance

No.	Essential characteristics		Performance	Designated Technical Specification
1)	Bending strength	$F_{m,0}$ $F_{m,90}$	Class F30 Class F30	EN 310:1993
2)	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ $E_{m,90}$	Class E70 Class E60	
3)	Bonding Quality	i) Pretreatment 5.1.1 ii) Pretreatment 5.1.4	Average = 1.515 N/mm <sup>2</sup> Average = 1.359 N/mm <sup>2</sup>	EN 314-1:2004 EN 314-2:1993
4)	Internal bond (Tensile strength)		NPD (Not available for plywood)	EN 319:1993
5)	Durability (Swelling in thickness)		NPD (Not available for plywood)	EN 317:1993
6)	Durability (Moisture resistance)		Exterior Conditions	EN 314-2:1993
7)	Release of formaldehyde		E1	EN 13986 - Annex B
8)	Reaction to fire		D-s2, d0	EN 13986 - Table 8
9)	Water vapour permeability $\mu$		Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
10)	Airborne sound insulation (R) (Frequency range of 1kHz - 3kHz)		26.41 dB	EN 13986 - clause 5.10
11)	Sound absorption	Frequency range 250 Hz to 500 Hz	0.10	EN 13986 - clause 5.11 - Table 10
		Frequency range 1000 Hz to 2000 Hz	0.30	
12)	Thermal conductivity $\lambda$		0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
13)	Strength and stiffness for structure use		NPD	EN 636:2012+A1:2015
14)	Mechanical durability		$K_{mod}$ 0.55 , $K_{def}$ 2.50	EN 1995-1-1 - Table 3.1 & 3.2
15)	Biological durability		Use Class 3 (UC 3)	EN 335:2013
16)	Content of pentachlorophenol		$\leq$ 5 ppm	EN 13986 - Clause 5.18
17)	Racking resistance		NPD	EN 594:1995
18)	Embedment strength		NPD	EN 383:1993

Item (7), (8) and (10) - Value declared based on density results

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME:

TITLE:

MIKE CHONG LEE CHUIN  
 QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

BUNGA PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

# 亞洲夾板有限公司 ASIA PLYWOOD COMPANY SDN. BHD.

Company No : 196401000353 (5653-H)  
Plot 35-38 , Kawasan Perusahaan Bukit Selambau,  
P. O. Box 42, 08010 Sungai Petani, Kedah, Malaysia.



HOUSE BRAND  
CHAP RUMAH

PLYWOOD & VENEERS · Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

<b>DECLARATION OF PERFORMANCE (DOP)</b>				<b>Document Number: 22.0mm-DOP-UKCA-MRN</b>		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 22.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as structural component in exterior conditions. EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 2+	EN 314-2 Class 3	UKCA Mark:	UK 0836
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH
* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.						

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Bending strength	$F_{m,0}$ $F_{m,90}$	EN 310:1993
2)	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ $E_{m,90}$	
3)	Bonding Strength	i) Pretreatment 5.1.1 Average = 1.753 N/mm <sup>2</sup> ii) Pretreatment 5.1.4 Average = 1.306 N/mm <sup>2</sup>	EN 314-1:2004 EN 314-2:1993
4)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 319:1993
5)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 317:1993
6)	Durability (Moisture resistance)	Exterior Conditions	EN 314-2:1993
7)	Release of formaldehyde	E1	EN 13986 - Annex B
8)	Reaction to fire	D-s2, d0	EN 13986 - Table 8
9)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
10)	Airborne sound insulation (R) (Frequency range of 1kHz - 3kHz)	27.54 dB	EN 13986 - clause 5.10
11)	Sound absorption	Frequency range 250 Hz to 500 Hz 0.10 Frequency range 1000 Hz to 2000 Hz 0.30	EN 13986 - clause 5.11 - Table 10
12)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.12 - Table 11
13)	Strength and stiffness for structure use	NPD	EN 636:2012+A1:2015
14)	Mechanical durability	$K_{mod}$ 0.55 , $K_{per}$ 2.50	EN 1995-1-1 - Table 3.1 & 3.2
15)	Biological durability	Use Class 3 (UC 3)	EN 335:2013
16)	Content of pentachlorophenol	≤ 5 ppm	EN 13986 - Clause 5.18
17)	Racking resistance	NPD	EN 594:1996
18)	Embedment strength	NPD	EN 383:1993

Item (7), (8) and (10) - Value declared based on density results

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME:

TITLE:

MIKE CHONG LEE CHUIN

QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023

# 亞洲夾板有限公司 ASIA PLYWOOD COMPANY SDN. BHD.

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HOUSE BRAND  
CHAP RUMAH

PLYWOOD & VENEERS Hunting Lines Tel : Nos. 604-4197111 Fax : 604-4197001/002

## TOFAN MARINE PLYWOOD

<b>DECLARATION OF PERFORMANCE (DOP)</b>				<b>Document Number: 25.0mm-DOP-UKCA-MRN</b>		
Revision: 8		Revision date: 2023-Dec-10		Active Date: 2019-Sep-22		
Product Type	Intended use	Glue Type	AVCP*	Bonding Quality	Scheme:	Approved Body
Standard Marine Plywood Thickness = 25.0mm CE Mark, UKCA Mark and BS 1088 on packaging Third Party Verified	Marine applications as structural component in exterior conditions. EN 636-1, -2 & -3	WBP (Phenol Formaldehyde)	AVCP 2+	EN 314-2 Class 3	UKCA Mark:	UK 0836
					Marine Plywood BS 1088 : 2018 3 <sup>rd</sup> Party Verifier	HFB Engineering GmbH

\* This declaration of performance is issued, in accordance with regulation (EU) No 305/2011 as it has effect in the United Kingdom in respect of Great Britain, under the sole responsibility of the manufacturer identified above.

### Declared Performance

No.	Essential characteristics	Performance	Designated Technical Specification
1)	Bending strength	$F_{m,0}$ $F_{m,90}$	EN 310:1993
2)	Bending stiffness (Modulus of Elasticity)	$E_{m,0}$ $E_{m,90}$	
3)	Bonding Quality	i) Pretreatment 5.1.1 ii) Pretreatment 5.1.4	Average = 1.376 N/mm <sup>2</sup> Average = 1.016 N/mm <sup>2</sup>
4)	Internal bond (Tensile strength)	NPD (Not available for plywood)	EN 314-1:2004 EN 314-2:1993
5)	Durability (Swelling in thickness)	NPD (Not available for plywood)	EN 319:1993
6)	Durability (Moisture resistance)	NPD (Not available for plywood)	EN 317:1993
7)	Release of formaldehyde	Exterior Conditions	E1
8)	Reaction to fire	D-s2, d0	EN 13986 - Annex B EN 13986 - Table 8
9)	Water vapour permeability $\mu$	Wet cup = 70 ; Dry cup = 200	EN 13986 - Table 9
10)	Airbone sound insulation (R) (Frequency range of 1kHz ~ 3kHz)	28.25 dB	EN 13986 - clause 5.10
11)	Sound absorption	Frequency range 250 Hz to 500 Hz Frequency range 1000 Hz to 2000 Hz	0.10 0.30
12)	Thermal conductivity $\lambda$	0.13 W/m.K	EN 13986 - clause 5.11 - Table 10
13)	Strength and stiffness for structure use	NPD	EN 13986 - clause 5.12 - Table 11
14)	Mechanical durability	$K_{red}$ 0.55 , $K_{rel}$ 2.50	EN 636:2012+A1:2015
15)	Biological durability	Use Class 3 (UC 3)	EN 1995-1-1 - Table 3.1 & 3.2
16)	Content of pentachlorophenol	≤ 5 ppm	EN 335:2013
17)	Racking resistance	NPD	EN 13986 - Clause 5.18
18)	Embedment strength	NPD	EN 594:1996 EN 383:1993

Item (7), (8) and (10) - Value declared based on density results

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.

Sign for and on behalf of the manufacturer by:

SIGNATURE:

NAME: MIKE CHONG LEE CHUAN

TITLE: QA / QMR OFFICER



PLACE AND DATE OF ISSUE:

SUNGAI PETANI, KEDAH DARUL AMAN, MALAYSIA

10 December 2023