FORESTIA

DECLARATION of PERFORMANCE. <u>Ref. no.: YT-08.</u>

- 1. Product name: 22 mm Forestia Thermoflooring Standard P6.
- 25 mm Forestia Thermoflooring Ekstra P5/P6.
- 2. Product type : Flooring Board Standard P6: Particleboard type: NS-EN 312 P6 Flooring Board Ekstra P5/P6: Particleboard type: NS-EN 312 P5/P6
- 3. Intended use: Type P6: Heavy duty load bearing boards for use in dry conditions.
 - Type P5/P6: Heavy duty load bearing boards for use in humid conditions.
- 4. Manufacturer: Forestia AS, 2435 Braskereidfoss, Norway.
- 5. System of attestation of conformity: System 2+
- 6. Harmonised standard: NS-EN 13986:2004+A1:2015 Accredited laboratorium: Norsk Treteknisk Institutt, identification no. 1070.
- 7. Declared performance:

22 mm Forestia Thermoflooring Standard, P625 mm Forestia Thermoflooring Ekstra, P5/P6Bending strength16 MPa16 MPaModulus of elasticity2550 MPa0,40 MPaInternal bond0,40 MPa0,40 MPaThickness swelling $\leq 15 \%$ $\leq 10 \%$ Moisture resistance after cyclic test: - Thickness swelling $\leq 11 \%$ 13986:2004- Internal bond0,20 MPa13986:2004Strength and stiffness for structural use: - Static point loadPassedPassed- Dynamic loadingPassedPassedReaction to fire:DFL- s1DFL- s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" " frequency 1000-2000 Hz0,250,25Water vapor permeability μ , wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP) <5 ppm <5 ppmFormaldehyde potentialClass E1Class E1	Essential characteristics:	Performanse:		Harmonized technical specification:
Modulus of elasticity2550 MPa2550 MPaInternal bond0,40 MPa0,40 MPaThickness swelling $\leq 15 \%$ $\leq 10 \%$ Moisture resistance after cyclic test: $\leq 11 \%$ $\leq 11 \%$ Thickness swelling $\leq 11 \%$ $0,20 MPa$ Internal bond $0,20 MPa$ $13986:2004$ Strength and stiffness for structural use: -5 tatic point loadPassedPassedPassedPassed-Dynamic loadingPassedPassedReaction to fire: D_{FL} - s1 D_{FL} - s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz $0,25$ $0,25$ Water vapor permeability μ , wet / dry cup $15 / 50$ $15 / 50$ Thermal conductivity, $W/(m K)$ $0,13$ $0,13$ Biological durabilityNPDNPDContent of pentachlorophenol (PCP) <5 ppm <5 ppm		Thermoflooring	Thermoflooring	
Internal bond0,40 MPa0,40 MPaThickness swelling $\leq 15 \%$ $\leq 10 \%$ Moisture resistance after cyclic test: $\leq 11 \%$ NS-EN- Thickness swelling $(0,20 MPa)$ $13986:2004$ - Internal bond $(0,20 MPa)$ $13986:2004$ Strength and stiffness for structural use: $(0,20 MPa)$ $13986:2004$ -Static point loadPassedPassed-Dynamic loadingPassedPassedReaction to fire: D_{FL} - s1 D_{FL} - s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz $(0,10)$ $(0,10)$ " requency 1000-2000 Hz $(0,25)$ $(0,25)$ Water vapor permeability μ , wet / dry cup $15 / 50$ $15 / 50$ Thermal conductivity, $W/(m K)$ $(0,13)$ $(0,13)$ Biological durabilityNPDNPDContent of pentachlorophenol (PCP) <5 ppm <5 ppm	Bending strength	16 MPa	16 MPa	
Thickness swelling Moisture resistance after cyclic test: - Thickness swelling - Internal bond $\leq 15 \%$ $\leq 10 \%$ $\leq 11 \%$ 0,20 MPaNS-EN 13986:2004 	Modulus of elasticity	2550 MPa	2550 MPa	
Moisture resistance after cyclic test:≤11 %NS-EN- Thickness swelling $0,20$ MPa13986:2004- Internal bond0,20 MPa13986:2004Strength and stiffness for structural use:Static point loadPassedPassed-Dynamic loadingPassedPassedReaction to fire:DFL- s1DFL- s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" frequency 1000-2000 Hz0,250,25Water vapor permeability μ, wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	Internal bond	0,40 MPa	0,40 MPa	
- Thickness swelling≤11 %NS-EN- Internal bond0,20 MPa13986:2004Strength and stiffness for structural use: -Static point loadPassedPassed-Static point loadPassedPassed-Dynamic loadingPassedPassedReaction to fire:DFL- s1DFL- s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" requency 1000-2000 Hz0,250,25Water vapor permeability μ, wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	Thickness swelling	≤15 %	≤10 %	
Internal bond $0,20$ MPa $13986:2004$ Strength and stiffness for structural use: -Static point loadPassedPassed-Static point loadPassedPassed-Dynamic loadingPassedPassedReaction to fire: D_{FL} - s1 D_{FL} - s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz $0,10$ $0,10$ " frequency 1000-2000 Hz $0,25$ $0,25$ Water vapor permeability μ , wet / dry cup $15/50$ $15/50$ Thermal conductivity, W/(m K) $0,13$ $0,13$ Biological durabilityNPDNPDContent of pentachlorophenol (PCP) <5 ppm <5 ppm	Moisture resistance after cyclic test:			
Internal cond6,20 Hr dStrength and stiffness for structural use: -Static point loadPassedPassed-Static point loadPassedPassed-Dynamic loadingPassedPassedReaction to fire:DFL- s1DFL- s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10"frequency 1000-2000 Hz0,250,25Water vapor permeability μ, wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	- Thickness swelling		≤11 %	
Strength and stringes for structular use.PassedPassed-Static point loadPassedPassed-Dynamic loadingPassedPassedReaction to fire: D_{FL} - s1 D_{FL} - s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" frequency 1000-2000 Hz0,250,25Water vapor permeability μ , wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	- Internal bond		0,20 MPa	
-Dynamic loadingPassedPassedReaction to fire: D_{FL} - s1 D_{FL} - s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" frequency 1000-2000 Hz0,250,25Water vapor permeability μ , wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	Strength and stiffness for structural use:			+A1:2015
Reaction to fire: D_{FL} - s1 D_{FL} - s1Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" frequency 1000-2000 Hz0,250,25Water vapor permeability μ , wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	-Static point load	Passed	Passed	
Airborne sound insulationNPDNPDSound absorption, frequency 250-500 Hz0,100,10" frequency 1000-2000 Hz0,250,25Water vapor permeability μ , wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	-Dynamic loading	Passed	Passed	
Sound absorption, frequency 250-500 Hz 0,10 0,10 " frequency 1000-2000 Hz 0,25 0,25 Water vapor permeability μ , wet / dry cup 15 / 50 15 / 50 Thermal conductivity, W/(m K) 0,13 0,13 Biological durability NPD NPD Content of pentachlorophenol (PCP) <5 ppm	Reaction to fire:	D _{FL} - s1	D _{FL} - s1	
" "frequency 1000-2000 Hz 0,25 0,25 Water vapor permeability μ , wet / dry cup 15 / 50 15 / 50 Thermal conductivity, W/(m K) 0,13 0,13 Biological durability NPD NPD Content of pentachlorophenol (PCP) <5 ppm	Airborne sound insulation	NPD	NPD	
Water vapor permeability µ, wet / dry cup15 / 5015 / 50Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	Sound absorption, frequency 250-500 Hz	0,10	0,10	
Thermal conductivity, W/(m K)0,130,13Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	" " frequency 1000-2000 Hz	0,25	0,25	
Biological durabilityNPDNPDContent of pentachlorophenol (PCP)<5 ppm	Water vapor permeability μ , wet / dry cup	15 / 50	15 / 50	
Content of pentachlorophenol (PCP)<5 ppm<5 ppm	Thermal conductivity, W/(m K)	0,13	0,13	
	Biological durability	NPD	NPD	
Formaldehyde potential Class E1 Class E1	Content of pentachlorophenol (PCP)	<5 ppm	<5 ppm	
	Formaldehyde potential	Class E1	Class E1	

NPD = No performance declared

8. The performance of the product identified in points no. 1 and 2 are in conformity with the declared performance in point no. 7.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point no. 4.

Signed for and on behalf of Forestia AS by:

Vegard Grønnerud, Quality Manager

NameFunction.Braskereidfoss,27.08.2021

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Signature.