

DECLARATION OF PERFORMANCE ISOLSHELL AL-2021

Version 20/12/2021

1. Unique identification code of the product type:

MW EN14303-T8-ST(+)-450°C-CS (10)20-WS1-MV1, CL8-pH9,5

(thickness s= 40 mm)

MW EN14303-T8-ST(+)-650°C-CS (10)20-WS1-MV1, CL8-pH9,5

(thickness s= 80 mm)

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4): **ISOLSHELL – stone mineral wool pipe thermo-insulation (MW) faced with aluminum foil**
3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer: **Factory made mineral wool products (MW), used for thermal insulation of building equipment and industrial installations with an operating range of approximately 0° C to + 800 °C**
4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11 (5): **“Chemical products” Ltd. Yambol 8600, 7-B Sokol Str., Bulgaria**
5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12 (2): **not applicable**
6. System or systems of assessment and verification of constancy performance of the construction product as set out in Annex V: **System 3**
7. In case of the declaration of performance concerning a construction product covered by a harmonized standard:

Building Research Institute - NISI, License NB 2032
(name and identification number of the notified body)

Performed initial type of testing under system 3 and issued Test Report № ПИТ-EC-302-5/12.04.2013r. which is to serve the manufacturer/importer to issue conformity declaration and for CE marking and Test Report № 355 / 12.04.2013r, Test Report № 502 / 10.06.2020.

And

“Centre for Testing and European Certification” (CTEC), license NB 1871-CPD RtF-045/11.10.2012, „Construction Products Testing Laboratory” within CTEC – Stara Zagora

Test Protocol № 1422006/20.12.2012 – БДС EN ISO 1182:2011

Test Protocol № 1420374/21.03.2013 – БДС EN ISO 13823:2011

Test Protocol № 1420375/21.03.2013 – БДС EN ISO 13823:2011

Test Protocol № 1420376/21.03.2013 – БДС EN ISO 13823:2011

8. Declared performance:

Essential characteristics	Performance	Harmonized technical specification
Pipe insulation – MW Ø 48x40 mm, faced with Alu - foil		BDS EN 14303 : 2015
Thickness	40 mm	БДС EN 13467
Thermal conductivity at $t_0 = 250^{\circ}\text{C}$ - λ Surface thermal conductivity $t_0 = 250^{\circ}\text{C}$ - Λ	0,075 W/m.K 1,2 W/m ² .K	БДС EN ISO 8497
Relative thermal conductivity $t_0 = 250^{\circ}\text{C}$ - r Thermal resistance at $t_0 = 250^{\circ}\text{C}$ – R	13,3 W/m.K 0,83 W/m ² .K	БДС EN ISO 8497
Geometrical dimensions –delivered: - diameter – Di - inside diameter - diameter – Do - outside diameter - length - L	48 mm 130 mm 1000 mm	БДС EN 13467
Compressive strength 10% deformation	25 кPa	БДС EN 826
- Water soluble chloride content - pH-value	8,2 mg/kg 9,5 -	БДС EN 13468
Organic content	1,7 %	БДС EN 13820
Water vapour diffusion - μ : - without AL foil - with AL foil equivalent air layer thickness - Sd	6 59500 0,25	БДС EN 13469
Short term water absorption by partial immersion	0,075 kg/m ²	БДС EN 13472
Density	80 kg/m ³	БДС EN 1602
Thermal conductivity at internal temperature of MW: 10 °C 50 °C 100 °C 150 °C 250 °C 400 °C $t_{Al} > 150^{\circ}\text{C}$	0,0335 W/m.K 0,0365 W/m.K 0,0435 W/m.K 0,058 W/m.K 0,075 W/m.K 0,110 W/m.K	БДС EN 12667 БДС EN ISO 8497
Maximum service temperature load 500 Pa Deformation	450 °C 1,5 %	БДС EN 14706 БДС EN 14707
Reaction to fire		EN 13501-1:2007+ A1
Without Alu foil	A1	
With Alu foil	A2L	
Pipe insulation – MW Ø 48x80 mm, faced with Alu – foil		БДС EN 14303 : 2015
Thickness	80 mm	БДС EN 13467
Thermal conductivity at $t_0 = 250^{\circ}\text{C}$ - λ Surface thermal conductivity $t_0 = 250^{\circ}\text{C}$ - Λ	0,068 W/m.K 0,72 W/m ² .K	БДС EN ISO 8497
Relative thermal conductivity $t_0 = 250^{\circ}\text{C}$ - r Thermal resistance at $t_0 = 250^{\circ}\text{C}$ – R	14,7 W/m.K 1,38 W/m ² .K	БДС EN ISO 8497
Geometrical dimensions –delivered: - diameter – Di - inside diameter - diameter – Do - outside diameter - length - L	48 mm 208 mm 1000 mm	БДС EN 13467
Compressive strength 10% deformation	25 кPa	БДС EN 826
- Water soluble chloride content - pH-value	8,2 mg/kg 9,5 -	БДС EN 13468

Organic content	1,7 %	БДС EN 13820
Water vapour diffusion - μ : - without AL foil - with AL foil equivalent air layer thickness - Sd	6 59500 0,5	БДС EN 13469
Short term water absorption by partial immersion	0,075 kg/m ²	БДС EN 13472
Density	80 kg/m ³	БДС EN 1602
Thermal conductivity at internal temperature of MW: 10 °C 50 °C 100 °C 150 °C 250 °C 400 °C 500 °C 600 °C 650°C t Al > 150 °C	0,0335 W/m.K 0,0365 W/m.K 0,0435 W/m.K 0,052 W/m.K 0,068 W/m.K 0,088 W/m.K 0,100 W/m.K 0,115 W/m.K 0,120 W/m.K	БДС EN 12667 БДС EN ISO 8497
Maximum service temperature load 500 Pa Deformation	650 °C 1,7 %	БДС EN 14706 БДС EN 14707
Reaction to fire		EN 13501-1:2007+ A1
Without Alu foil	A1	
With Alu foil	A2L	
Pipe insulation – MW Ø 159x40 mm, faced with Alu – foil		БДС EN 14303 : 2015
Thickness	40 mm	БДС EN 13467
Thermal conductivity at t₀=250°C - λ Surface thermal conductivity t₀=250°C - Λ	0,080 W/m.K 1,61 W/m ² .K	БДС EN ISO 8497
Relative thermal conductivity t₀=250°C - r Thermal resistance at t₀=250°C – R	12,5 W/m.K 0,62 W/m ² .K	БДС EN ISO 8497
Geometrical dimensions –delivered: - diameter – Di - inside diameter - diameter – Do - outside diameter - length - L	159 mm 240 mm 1000 mm	БДС EN 13467
Compressive strength 10% deformation	25 кPa	БДС EN 826
- Water soluble chloride content - pH-value	8,2 mg/kg 9,5 -	БДС EN 13468
Organic content	1,7 %	БДС EN 13820
Water vapour diffusion - μ : - without AL foil - with AL foil equivalent air layer thickness - Sd	6 59500 0,25	БДС EN 13469
Short term water absorption by partial immersion	0,075 kg/m ²	БДС EN 13472
Density	80 kg/m ³	БДС EN 1602
Thermal conductivity at internal temperature of MW: 10 °C 50 °C 100 °C 150 °C	0,0335 W/m.K 0,0365 W/m.K 0,0435 W/m.K 0,062 W/m.K	БДС EN 12667 БДС EN ISO 8497

• 250 °C • 400 °C t Al > 150 °C	• 0,080 W/m.K • 0,115 W/m.K	
Maximum service temperature load 500 Pa Deformation	450 °C 1,5 %	БДС EN 14706 БДС EN 14707
Reaction to fire		EN 13501-1:2007+ A1
Without Alu foil	A1	
Without Alu foil	A2L	
Pipe insulation – MW Ø 159x80 mm, faced with Alu - foil		БДС EN 14303 : 2015
Thickness	80 mm	БДС EN 13467
Thermal conductivity at t ₀ =250°C -λ Surface thermal conductivity t ₀ =250°C - Λ	0,070 W/m.K 0,63 W/m2.K	БДС EN ISO 8497
Relative thermal conductivity t ₀ =250°C - r Thermal resistance at t ₀ =250°C – R	14,3 W/m.K 1,59 W/m2.K	БДС EN ISO 8497
Geometrical dimensions –delivered: • diameter – Di - inside diameter • diameter – Do - outside diameter • length - L	• 160 mm • 320 mm • 1000 mm	БДС EN 13467
Compressive strength 10% deformation	25 кPa	БДС EN 826
• Water soluble chloride content • pH-value	• 8,2 mg/kg • 9,5 -	БДС EN 13468
Organic content	1,7 %	БДС EN 13820
Water vapour diffusion - μ: • without AL foil • with AL foil equivalent air layer thickness - Sd	• 6 • 59500 • 0,5	БДС EN 13469
Short term water absorption by partial immersion	0,075 kg/m2	БДС EN 13472
Density	80 kg/m3	БДС EN 1602
Thermal conductivity at internal temperature of MW: • 10 °C • 50 °C • 100 °C • 150 °C • 250 °C • 400 °C • 500 °C • 600 °C • 650°C t Al > 150 °C	• 0,0335 W/m.K • 0,0365 W/m.K • 0,0435 W/m.K • 0,052 W/m.K • 0,070 W/m.K • 0,090 W/m.K • 0,105 W/m.K • 0,120 W/m.K • 0,125 W/m.K	БДС EN 12667 БДС EN ISO 8497
Maximum service temperature load 500 Pa Deformation	650 °C 1,7 %	БДС EN 14706 БДС EN 14707
Reaction to fire		EN 13501-1:2007+ A1
Without Alu foil	A1	
With Alu foil	A2L	

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

Signed for and on behalf of the manufacturer by:



George Krustev
/Director/

Yambol, BULGARIA , 20.12.2021