

# CERTIFICATE OF PRODUCT CONFORMITY

*Dubai Central Laboratory Department (DCLD) of Dubai Municipality,*

*hereby attests that the product(s)*

**EXPANDED POLYSTYRENE THERMAL INSULATION**

*(Details as per the attached Scope of Certification)*

*manufactured by:*

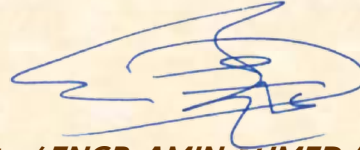
**NATIONAL POLYSTYRENE PACKAGING FACTORY**

**P.O. Box 79970, Dubai, U.A.E.**

*have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:*

**ASTM C578 - 16**

*Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark to the above-mentioned product(s).*



for / **ENGR. AMIN AHMED AMIN**

**Director, Dubai Central Laboratory Department**

**Dubai Municipality**

Verify:



**Certificate No: CL05020001**

**Valid Until: 26 July 2019**



**Current Issue Date: 27 July 2018**

**Original Issue Date: 26 July 2005**

DM-DCLD-F-IC-2031 REV 13

*The attached Scope of Certification bearing the same Certificate No. forms an integral part of this Certificate.*

*This Certificate is an electronic document, subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.*

**DUBAI CENTRAL LABORATORY DEPARTMENT**  
**DCL PRODUCT CONFORMITY CERTIFICATION SCHEME**

**SCOPE OF CERTIFICATION**  
**FOR CERTIFICATE NO. CL05020001**

<b>Certificate Issued To:</b>	NATIONAL POLYSTYRENE PACKAGING FACTORY P.O. Box 79970, Dubai, UAE
<b>Applicable Standard Specification:</b>	ASTM C 578 – 16 – Standard Specification for Cellular Rigid Polystyrene Thermal Insulation
<b>Applicable Specific Rules:</b>	RD-DP 21-2106 (IC) “Specific Rules for Certification of Rigid, Cellular Polystyrene Thermal Insulation (ASTM C 578 – 16) Through Factory Assessment”.

No.	Product Description	Brand Name	Product Details		
			Size	Thickness	Type
1	Rigid Cellular Expanded Polystyrene Thermal <b>Block Insert</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	INSERTKING 25	400 mm X 200 mm  412 mm x 200 mm	60 mm and 75 mm  110 mm and 160 mm	ASTM Type II Density: 25 kg/m <sup>3</sup> (min) (see Note 1)  (as per Table 1)
2	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Board</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	ROOFKING 20	100 cm x 50 cm  125 cm x 62 cm	3 cm, 4 cm, 5 cm, 7 cm, 7.5 cm, 8 cm & 10 cm	ASTM Type VIII  (as per Table 1)
3	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Board</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	ROOFKING 24			ASTM Type II  (as per Table 1)

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4	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Board</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	ROOFKING 32			ASTM Type IX  (as per Table 1)
5	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Board</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	ROOFKING 40			ASTM Type XIV  (as per Table 1)
6	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	STYROKING 12	Various Sizes	125 cm (max)	ASTM Type XI  (as per Table 1)
7	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	STYROKING 15			ASTM Type I  (as per Table 1)
8	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	STYROKING 20			ASTM Type VIII  (as per Table 1)

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9	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	STYROKING 24			ASTM Type II  (as per Table 1)
10	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	STYROKING 32			ASTM Type IX  (as per Table 1)
11	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	STYROKING 40			ASTM Type XIV  (as per Table 1)
12	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	KINGPOR S12	Various Sizes	125 cm (max)	ASTM Type XI  (as per Table 1)
13	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2)  and CFC Free (see Note 3)	KINGPOR S15			ASTM Type I  (as per Table 1)

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14	Rigid Cellular Expanded Polystyrene Thermal Insulation <b>Sheet</b>  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2) and CFC Free (see Note 3)	KINGPOR  S20			ASTM Type VIII  (as per Table 1)
15	Rigid Cellular Expanded Polystyrene Thermal Block Insert  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2) and CFC Free (see Note 3)	KINGPOR I25  GREY COLOR	412 mm x 200 mm	110 mm	ASTM Type II  (as per Table 1)
16	Rigid Cellular Expanded Polystyrene Thermal Block Insert  Fire Performance Test as per ASTM E84 (Flame Spread $\leq$ 25 and Smoke Developed Index $\leq$ 450) (see Note 2) and CFC Free (see Note 3)	KINGPOR I25  GREY COLOR	400 mm x 200 mm	60 mm	ASTM Type II  (as per Table 1)

Note 1: Minimum density required by Dubai Municipality for block insert.

Note 2: The Fire Safety Test Results complies with UAE Fire and Life Safety Code of Practice 2017.

Note 3: In compliance with clause 701.01 (1) of the 2017 AL-SA'FAT – DUBAI GREEN BUILDING EVALUATION SYSTEM.

Note 4: This document forms part of the Certificate of Product Conformity bearing the same certificate number.

Note 5: The above products shall bear the DCL Conformity Mark (applied on each product or on the packaging).

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TABLE 1. (EXPANDED)  
PHYSICAL PROPERTY REQUIREMENTS OF RIGID CELLULAR  
POLYSTYRENE THERMAL INSULATION

SN	PROPERTIES	TYPE XI	TYPE I	TYPE VIII	TYPE II	TYPE IX	TYPE XIV	TYPE XV
1	<b>COMPRESSIVE RESISTANCE</b> @ yield or 10% deformation, which occurs first, min kPa	35	69	90	104	173	276	414
2	<b>THERMAL RESISTANCE</b> of 25.4 mm thickness, @ mean temp. of @ 35°C and 60% RH min, K-m <sup>2</sup> /W	0.53	0.60	0.64	0.67	0.71	0.71	0.73
3	<b>THERMAL CONDUCTIVITY</b> , max, W/m·K @ 35°C and 60% RH	0.0482	0.0419	0.0394	0.0377	0.0356	0.0356	0.0347
4	<b>FLEXURAL STRENGTH</b> , min, kPa	70	173	208	240	345	414	517
5	<b>WATER VAPOR PERMEANCE</b> of 25.4 mm thickness, max, perm	5.0	5.0	3.5	3.5	2.5	2.5	2.5
6	<b>WATER ABSORPTION</b> by total immersion, max volume %	4.0	4.0	3.0	3.0	2.0	2.0	2.0
7	<b>DIMENSIONAL STABILITY</b> (change in dimension), max, %	2.0	2.0	2.0	2.0	2.0	2.0	2.0
8	<b>OXYGEN INDEX</b> , min, volume %	24	24	24	24	24	24	24
9	<b>DENSITY</b> , min, kg/m <sup>3</sup>	12	15	18	22	29	38	48

NOTE: THE ABOVE SPECIFICATION VALUES ARE EXTRACTED FROM TABLE 1 OF ASTM C578-16

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**ARIF HUSAIN AL MARZOOQI**

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Dubai Central Laboratory Department