



CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality,
hereby attests that the product(s):

CELLULAR RIGID POLYSTYRENE THERMAL INSULATION

(Details as per the attached Scope of Certification)

manufactured by:

NATIONAL POLYSTYRENE PACKAGING FACTORY

P.O. Box: 79970, Dubai, UAE

have been assessed in accordance with DCLD Document Ref. No. 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 C 578 - 10

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

ENGR. HAWA ABDULLA BASTAKI
Director, Dubai Central Laboratory Department
Dubai Municipality



Certificate No: CL05020001
Valid Until: 26 July 2012

Current Issue Date: 27 July 2011
Original Issue Date: 26 July 2005

The attached Scope of Certification bearing the same Certificate No. forms an integral part of this certificate.
This certificate is subject to the Terms and Conditions of the Product Certification System



DUBAI CENTRAL LABORATORY DEPARTMENT
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION Rev. 01
FOR CERTIFICATE NO. CL05020001

Certificate Issued To: NATIONAL POLYSTYRENE PACKAGING FACTORY
P.O. Box 79970, Dubai UAE

Applicable Standard Specification: ASTM C 578-11 – Standard Specification for Cellular Rigid Polystyrene Thermal Insulation

Applicable Specific Rules: RD-DP21-2106 (IC) "Specific Rules for Certification of Rigid, Cellular Polystyrene Thermal Insulation (ASTM C 578-11) Through Factory Assessment".

| No. | Product Description | Brand Name | Dimension | | Type |
|-----|---|---------------|--------------------------------------|--|--|
| | | | Size | Thickness | |
| 1 | Rigid Cellular Expanded Polystyrene Thermal Block Insert Fire Retardant Grade ** | INSERTKING 25 | 400 mm X 200 mm | 60 mm and 75 mm | ASTM Type II Density: 25 kg/m ³ (min)* (as per Table 1) |
| 2 | Rigid Cellular Expanded Polystyrene Thermal Insulation Board Fire Retardant Grade ** | 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 Board Fire Retardant Grade ** | ROOFKING 24 | | | ASTM Type II (as per Table 1) |
| 4 | Rigid Cellular Expanded Polystyrene Thermal Insulation Board Fire Retardant Grade ** | ROOFKING 32 | | | ASTM Type IX (as per Table 1) |
| 5 | Rigid Cellular Expanded Polystyrene Thermal Insulation Board Fire Retardant Grade ** | ROOFKING 40 | | | ASTM Type XIV (as per Table 1) |
| 6 | Rigid Cellular Expanded Polystyrene Thermal Insulation Sheet Fire Retardant Grade ** | STYROKING 12 | Various Sizes | 125 cm (max) | ASTM Type XI (as per Table 1) |

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| | | | | | |
|----|---|-----------------|---------------|--------------|------------------------------------|
| 7 | Rigid Cellular Expanded Polystyrene Thermal Insulation Sheet Fire Retardant Grade ** | STYROKING 15 | Various Sizes | 125 cm (max) | ASTM Type I (as per Table 1) |
| 8 | Rigid Cellular Expanded Polystyrene Thermal Insulation Sheet Fire Retardant Grade ** | STYROKING 20 | | | ASTM Type VIII (as per Table 1) |
| 9 | Rigid Cellular Expanded Polystyrene Thermal Insulation Sheet Fire Retardant Grade ** | STYROKING 24 | | | ASTM Type II (as per Table 1) |
| 10 | Rigid Cellular Expanded Polystyrene Thermal Insulation Sheet Fire Retardant Grade ** | STYROKING 32 | | | ASTM Type IX (as per Table 1) |
| 11 | Rigid Cellular Expanded Polystyrene Thermal Insulation Sheet Fire Retardant Grade ** | STYROKING 40 | | | ASTM Type XIV (as per Table 1) |

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

Note 2: ** Minimum acceptable oxygen index as per ASTM C578 is 24%

Note3: This document forms part of the Certificate of Product Conformity bearing the same certificate number.

Note 4: This supersedes the Scope of Certification issued on July 27, 2011

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

| SN | PROPERTIES | TYPE XI | TYPE I | TYPE VIII | TYPE II | TYPE IX | TYPE XIV | TYPE XV |
|----|--|---------|--------|-----------|---------|---------|----------|---------|
| 1 | COMPRESSIVE RESISTANCE @ yield or 10% deformation, which occurs first, min kPa | 35 | 69 | 90 | 104 | 173 | 276 | 414 |
| 2 | THERMAL RESISTANCE of 25.4 mm thickness, @ mean temp. of 24±1°C min, K-m ² /W | 0.55 | 0.63 | 0.67 | 0.70 | 0.74 | 0.74 | 0.76 |
| 3 | THERMAL CONDUCTIVITY, max, W/m·K @ 35°C and 60% RH | 0.0482 | 0.0419 | 0.0394 | 0.0377 | 0.0356 | 0.0356 | 0.0347 |
| 4 | FLEXURAL STRENGTH, min, kPa | 70 | 173 | 208 | 240 | 345 | 414 | 517 |
| 5 | WATER VAPOR PERMEANCE of 25.4 mm thickness, max, perm | 5.0 | 5.0 | 3.5 | 3.5 | 2.5 | 2.5 | 2.5 |
| 6 | WATER ABSORPTION by total immersion, max volume % | 4.0 | 4.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 |
| 7 | DIMENSIONAL STABILITY (change in dimension), max, % | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 8 | OXYGEN INDEX, min, volume % | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| 9 | DENSITY, min, kg/m ³ | 12 | 15 | 18 | 22 | 29 | 38 | 46 |

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

Original Issue Date: July 26, 2005
Current Issue Date: March 29, 2012
Valid Until : July 26, 2012

ARIF HUSAIN AL MARZOUQI
Acting Head of Inspection and Certification Section
Dubai Central Laboratory Department

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