nmc TECHNICAL INSULATION

DECLARATION OF PERFORMANCE

DoP No: W4W5FEF100 Insul - Tube® (Onninen)

1. **Unique identification code of the product-type:**
   W4W5FEF001

2. **Intended use or uses:**
   Thermal Insulation for Building Equipment and Industrial Installations (ThIBEII)

3. **Manufacturer:**
   Nmc Polska Sp. z o. o., 41-807 Zabrze, ul. Pyskowicka 15

4. **System or systems of assessment and verification of constancy of performance:**
   1+3

5. **Harmonized standard :**
   EN 14304:2009+A1:2013

   Notified bodies:
   NB 1454, NB, NB 1488, NB 0751

6. **Declared performance(s):**

<table>
<tr><th>Requirement / Characteristics from the mandate</th><th>Requirement clauses in the European Standard</th><th colspan="2">Performances : levels or classes</th></tr>
<tr><td>Reaction to fire Euroclass characteristics</td><td>4.2.4 Reaction to fire</td><td colspan="2">B_L-s3,d0</td></tr>
<tr><td>Acoustic absorption index</td><td>4.3.7 Structure-borne sound transmission</td><td colspan="2">NPD</td></tr>
<tr><td></td><td>4.3.8 Sound absorption</td><td colspan="2">NPD</td></tr>
<tr><td>Thermal resistance</td><td>4.2.1 Thermal conductivity</td><td>d_D = 6-25 mm D_i = 6-160

0,033 at -30°C
0,034 at 0°C
0,038 at 40°C
0,041 at 70°C</td><td>d_D = 32-60 mm D_i = 15-160

0,031 at -30°C
0,035 at 0°C
0,040 at 40°C
0,043 at 70°C</td></tr>
<tr><td></td><td>4.2.2. Dimensions and tolerances</td><td colspan="2">
<table>
<tr><th>Wall thickness [mm]:</th><th></th><th>Inner dimension [mm]:</th><th></th><th>Lenght:</th></tr>
<tr><td>$d_D \leq 8$</td><td>± 1,0</td><td>$D_i \leq 100$</td><td>+1 to +4</td><td>-1,5%</td></tr>
<tr><td>$8 < d_D \leq 18$</td><td>± 1,5</td><td>$D_i > 100$</td><td>+1 to +6</td><td></td></tr>
<tr><td>$18 < d_D \leq 31$</td><td>± 2,5</td><td></td><td></td><td></td></tr>
<tr><td>$d_D > 31$</td><td>± 3,0</td><td></td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Water permeability</td><td>4.3.4. Water absorption</td><td colspan="2">WS 01</td></tr>
<tr><td>Water vapour permeability</td><td>4.3.4 Water absorption</td><td colspan="2">WS 01</td></tr>
<tr><td></td><td>4.3.5 Water vapour diffusion resistance</td><td>d_D = 6-25 mm $D_{i,D}$ = 6-160
≥ 10 000</td><td>d_D = 32-60 mm $D_{i,D}$ = 15-160
≥ 7000</td></tr>
<tr><td>Rate of release of corrosive substances</td><td>4.3.6. Trace quantities of water solube ions & pH-value</td><td colspan="2">NPD</td></tr>
<tr><td>Release of dangerous substances to the indoor environment</td><td>4.3.9. Release of dangerous substances</td><td colspan="2">NPD</td></tr>
</table>

Requirement / Characteristics from the mandate	Requirement clauses in the European Standard	Performances : levels or classes
Continuous glowing combustion	4.3.10 Continuous glowing combustion	NPD
Durability of reaction to fire against ageing/degradation	4.2.5. Durability characteristics	The product meets the requirements for this property, the characteristics does not change with time.
Durability of thermal resistance against ageing/degradation	4.2.1. Thermal conductivity	The product meets the requirements for this property, the characteristics does not change with time.
	4.2.2. Dimensions and Tolerances	As above
	4.2.3. Dimentional stability	ST (+) 110°C
	4.2.5. Durability characteristics	The product meets the requirements for this property, the characteristics does not change with time.
	4.3.2. Maximum service temperature	ST (+) 110°C
	4.3.3. Minimum service temperature	ST (-) 30°C
Durability of reaction to fire against high temperature	4.2.5. Durability characteristics	The product meets the requirements for this property, the characteristics does not change with time.
Durability of thermal resistance against high temperature	4.2.5. Durability characteristics	The product meets the requirements for this property, the characteristics does not change with time.
	4.3.2. Maximum service temperature - dimentional stability	ST (+) 110°C

The performances of the product identified above is in conformity with the declared performance. In accordance with Regulation (EU) No 305/2011, this declaration of performance is issued under the sole responsibility of the manufacturer.

ADCA is a frequently used chemical blowing agent, which decomposes during heat induced foaming processes commonly used to produce certain foams. Residual ADCA levels in those foams are typically very low, but not nil.

Manufacturer take special care to ensure residual ADCA levels as low as technically feasible. Rubber foams, produced at NMC Polska Sp.Zo.o (Zabrze, Poland), show levels which exceed the 0.1 wt% threshold value. In alignment with REACH these grades have been notified by manufacturer and can be consulted in the SCIP database.

MCCP is commonly used as a plasticizer & flame retardant in rubber products. Although manufacturer is looking for alternatives, current rubber foams, produced at NMC Polska Sp.Zo.o (Zabrze, Poland), show levels which exceed the 0.1 wt% threshold value. In alignment with REACH these grades have been notified by manufacturer and can be consulted in the SCIP database.

Signed for and on behalf of the manufacturer by:

Name and function

Deputy Certification and Lab Coordinator



Izabela Blesińska

Zabrze, 12-10-2023
***this Decalaration of Performance replaced DoP No. W4W5FEF100 of 18.11.2020**

NMC Polska sp. z o. o.
ul. Pyskowicka 15 · 41-807 Zabrze +48 32 373 24 40 +48 32 373 24 43 biuro@nmc.pl version:003