

# Certificate of Technical Specifications

**portinari**

ambientes com emoção

PRODUCT: LIVE STEEL BW MLX  
 FORMAT: 48.2 X 400.0mm X 7.4 mm CONTAINS: 10 Pieces 0,19 m2 2,05 SQFT GROUP: Bla

| Technical Characteristics                        | ISO      | Req.             | Unit  | Specification |
|--|----------|------------------|-------|---------------|
| DIM. VAR. IN REL. W. OF THE GREATER SIDE         | 10545-2  | ±2.0             | mm    | ±2.0          |
| DIM. VAR. IN REL. W. OF THE MINOR SIDE           | 10545-2  | -                | -     | -             |
| THICKNESS VARIATION                              | 10545-2  | ±5.0             | %     | ±5.0          |
| STRAIGHTNESS OF THE GREATER SIDE                 | 10545-2  | -                | -     | -             |
| STRAIGHTNESS OF THE MINOR SIDE                   | 10545-2  | -                | -     | -             |
| DEVIATION FROM ORTHOGONALITY OF THE GREATER SIDE | 10545-2  | -                | -     | -             |
| DEVIATION FROM ORTHOGONALITY OF THE MINOR SIDE   | 10545-2  | -                | -     | -             |
| CENTRAL DIAGONAL CURVATURE DEVIATION             | 10545-2  | -                | -     | -             |
| DEVIATION OF THE CURVATURE OF THE SIDES          | 10545-2  | -                | -     | -             |
| DEVIATION OF THE CURVATURE OF THE SIDES          | 10545-2  | -                | -     | -             |
| BENDING OVER DIAGONAL                            | 10545-2  | -                | -     | -             |
| QUALITY OF SURFACE                               | 10545-2  | ≥95              | %     | ≥95           |
| WATER ABSORPTION                                 | 10545-3  | ≤0.5             | %     | ≤0.5          |
| RESISTANCE TO BENDING                            | 10545-4  | ≥35              | N/mm2 | ≥35           |
| BREAKING STRENGTH                                | 10545-4  | ≥700             | N     | ≥700          |
| CLASS OF USAGE                                   |          | Specify          | Use   | 4             |
| THERMAL SHOCK RESISTANCE                         | 10545-9  | -                | -     | -             |
| LINEAR EXPANSION COEFFICIENT X 10-6              | 10545-8  | -                | °C-1  | -             |
| MOISTURE EXPANSION                               | 10545-10 | -                | mm/m  | ≤0.30         |
| GRAZING RESISTANCE                               | 10545-11 | -                | -     | OK            |
| RESISTANCE TO CHEMICALS                          | 10545-13 | Minimum Class GB | -     | GA            |
| RESISTANCE ATTACKS ACID/ALKALINE                 | 10545-13 | Specify          | -     | GLB           |
| SURFACE RESISTANCE TO STAINS                     | 10545-14 | Minimum Class 3  | -     | Min.Class 3   |
| COEFFICIENT OF FRICTION WET                      | NBR16919 | Specify          |       | -             |
| CHANGES IN HUE                                   |          |                  |       | V2            |

Note: Product in accordance with ABNT NBR 13006 standard  
 Reaction to fire evaluation (NBR15575): Class I (non-combustible)  
 USE 4 - All residential areas.

  
 Jamilson Pinter Júnior  
 Responsável Técnico RC1 e RC2

  
 Gildino da Luz  
 Responsável Técnico RC3 e RC4