

# Certificate of Technical Specifications

**portinari**

ambientes com emoção

PRODUCT: MUNICH BK NAT  
 FORMAT: 1000.0 X  
 1000.0mm X 9  
 mm  
 CONTAINS: 2 Pieces 2,00  
 m2 21,53  
 SQFT  
 GROUP: Bla

Technical Characteristics	ISO	Req.	Unit	Specification
DIM. VAR. IN REL. W. OF THE GREATER SIDE	10545-2	±1.0	mm	±1.0
DIM. VAR. IN REL. W. OF THE MINOR SIDE	10545-2	±1.0	mm	±1.0
THICKNESS VARIATION	10545-2	±0.45	mm	±0.45
STRAIGHTNESS OF THE GREATER SIDE	10545-2	±0.80	mm	±0.80
STRAIGHTNESS OF THE MINOR SIDE	10545-2	±0.80	mm	±0.80
DEVIATION FROM ORTHOGONALITY OF THE GREATER SIDE	10545-2	±1.50	mm	±1.50
DEVIATION FROM ORTHOGONALITY OF THE MINOR SIDE	10545-2	±1.50	mm	±1.50
CENTRAL DIAGONAL CURVATURE DEVIATION	10545-2	±1.80	mm	±1.80
DEVIATION OF THE CURVATURE OF THE SIDES	10545-2	±1.80	mm	±1.80
DEVIATION OF THE CURVATURE OF THE SIDES	10545-2	±1.80	mm	±1.80
BENDING OVER DIAGONAL	10545-2	±1.80	mm	±1.80
QUALITY OF SURFACE	10545-2	≥95	%	≥95
WATER ABSORPTION	10545-3	≤0.5	%	≤0.5
RESISTANCE TO BENDING	10545-4	≥35	N/mm <sup>2</sup>	≥35
BREAKING STRENGTH	10545-4	≥1300	N	≥1300
CLASS OF USAGE		Specify	Use	4
THERMAL SHOCK RESISTANCE	10545-9	-	-	-
LINEAR EXPANSION COEFFICIENT X 10 <sup>-6</sup>	10545-8	-	°C <sup>-1</sup>	-
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	-	4
COEFFICIENT OF FRICTION WET	NBR16919	Specify		≥0.4
CHANGES IN HUE				V3

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

  
 Galdino da Luz  
 Responsável Técnico RC3 e RC4