

## SINIAT VINYL CEILING TILES

### Compliance to Standards

Siniat Standard Plasterboards carry an SABS Mark of Approval under specification SANS 266: “South African National Standard: Plasterboards”, which includes all the Siniat Vinyl Ceiling Tiles.

### Sizes Available

Thickness Available (mm)	Board Widths available (mm)	Lengths Available (mm)
9	600 (actual width: 595mm)	600 1200
12	600 (actual width: 595mm)	600 1200

### Tolerances:

Dimension	Unit	Target	Tolerance
Width	mm	600	+0 -5
Length	mm	600	+0 -5
	mm	1200	+0 -5
Thickness	mm	9.0	+0.5 -0.5
	mm	12.0	+0.5 -0.5
Rectangularity:			
	<ul style="list-style-type: none"><li>600mm width</li><li>1200mm width</li></ul>	mm mm	3.0mm 4.0mm
Edge angles	Degrees	90	+3 -6

## Physical Properties:

Property	Method	Unit	Minimum Requirement
<b>Paper to Core Bond</b> All thicknesses	SANS 266	%	67
<b>Maximum Breaking Load</b> 9.0mm			
• Transverse	SANS 266	N	140
• Longitudinal	SANS 266	N	360
12.0mm			
• Transverse	SANS 266	N	180
• Longitudinal	SANS 266	N	500
<b>Thermal Properties</b>		<b>Unit</b>	<b>Typical Values</b>
Thermal Conductivity – K-value	ASTM C518 and TO178-W1-015	W/m.K	0.104
Thermal Resistance			
• 9.0mm	ASTM C518	m <sup>2</sup> .K/W	0.087
• 12.0mm	ASTM C518	m <sup>2</sup> .K/W	0.116
<b>Fire Properties</b>		<b>Unit</b>	<b>Typical Values</b>
Surface Fire Index	SANS 10177: 3	Class	1

## Performance Tests

Humidity Tests	Method	Unit	Minimum Requirement
Sag Test: Total Moisture Induced Sag at 90% R.H and 32°C			
• 600mm x 600mm x 9mm Ceiling Tiles	ASTM 367-89	mm mm	0.75
• 600mm x 900mm x 9mm Vinyl Ceiling Tiles	ASTM 367-89	mm	3.95
• 600mm x 900mm x 12mm Vinyl Ceiling Tiles	ASTM 367-89		2.92
Acoustical Resistance	Method	Unit	Minimum Requirement
Acoustical Resistance – $R_w$ Value			
• 9mm board only	Marshall Day	dB	26
• 12mm board only	Marshall Day	dB	27
Acoustical Resistance – $R_w$ Value – Theoretical Predictions by professional acoustical engineer			
• Suspended Ceilings using 9mm Siniat Ceiling Tiles in Siniat Master Grid			
◦ Without insulation	ISO 140/IV	dB	25
◦ With 50mm 14 density Glass Wool	ISO 140/IV	dB	30
◦ With 50mm 47 density Glass Wool	ISO 140/IV	dB	31
◦ With 100mm 47 density Glass Wool	ISO 140/IV	dB	33
◦ With 50mm 80 density Mineral Wool	ISO 140/IV	dB	33
• Suspended Ceilings using 12mm Siniat Ceiling Tiles in Siniat Master Grid			
◦ Without insulation	ISO 140/IV	dB	26
◦ With 50mm 14 density Glass Wool	ISO 140/IV	dB	32
◦ With 50mm 47 density Glass Wool	ISO 140/IV	dB	33
◦ With 100mm 47 density Glass Wool	ISO 140/IV	dB	35
◦ With 50mm 80 density Mineral Wool	ISO 140/IV	dB	34
• Partition Systems			
◦ 12mm single skin partition system on 102mm studs with 50mm 14 density Polyester Wool	ISO 140/IV	dB	50
◦ 9mm single skin partition system on 64mm studs with 50mm 14 density Glass wool	Marshall Day	dB	41

Contact Siniat for installation details and for more acoustical solutions.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact our Technical Services Department.