

SMC 5005 R1HL2

SMC Low Profile Polyester

Technical Data Sheet

Update : February 2016

Description :

5005-26 is a SMC reinforced with chopped glass fibres (25 mm).
5005-26 is a non-pigmented SMC with high mechanical properties and good surface aspect.
SMC 5005-26 have fire and smoke properties to meet EN45545-2 expectation

Moulding features (*) :

	Unit	Test method
Reactivity		ISO 12114
• Moulding T°C :	°C	145
• Thickness :	mm	2.0
• Cure time :	s	42
Density		2.08 NFT 51063
Shrinkage	%	0.0 NF EN 1842

(*) Compression moulding without flow

Use recommendations :

temperature between 140°C and 155°C.
Pressure between 60 and 100 bars

Application :

Low profile Railway and electrical application

COMPOSITION

Product nature	Unit	Ratio
Glass fibres content	%	22
Resins content	%	16
Fillers content	%	61
Recycled Powder	%	0
Other products content	%	1

APPEARANCE

	Unit	
Rolls –		600/1500-
Boxes:	kg	1000
SMC width :	cm	150
Material support :	-	PE
Surface weight :	kg/m ²	4,5
Colour		Natural

MECHANICAL PROPERTIES WITHOUT FLOW AT 23°C

Moulding conditions

Temperature	°C	145
Thickness	mm	2
Curing time	sec	90
Covering	%	100
Part size	mm	250X120
Layers		1

	Unit	Test method
Flexural test (*)		ISO 178
- Breaking stress	MPa	195
- Elastic modulus	MPa	12000
- Deviation at break	%	2.8
Impact test (Charpy)(**)	kJ/m ²	77 ISO 179
Tensile test (***)		ISO 527
- Breaking stress	MPa	ND
- Elastic modulus	MPa	ND
- Elongation at break	%	ND

(*) Average on the 2 pilot batches

(**) Average on the 2 pilot batches

(***)

MECHANICAL PROPERTIES WITH FLOW AT 23°C

Moulding conditions

Temperature	°C	150
Thickness	mm	3.2
Curing time	sec	90
Covering	%	36
Part size	mm	700X300
Layers		4

	Unit	Perp/Para	Test method
Flexural test(*)			ISO 178
- Breaking stress	MPa	140/210	
- Elastic modulus	MPa	10300/12000	
- Deviation at break	mm		
Tensile test (**)			ISO 527
- Breaking stress	MPa		
- Elastic modulus	MPa		
- Elongation at break	%		

(*) Average on 1 pilot Batch

(**)

Mixt Composites Recyclables

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OTHER PROPERTIES

	<i>Unit</i>		<i>Test method</i>
HDT-A	°C	>230	ISO 75-2
IO	%	>98.6	ISO 4589-2
UL 94	⁶	V0 (2mm)	ISO1210
R1 classification	LEVEL	HL2	EN45545-2

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