

# SMC 5005 R1HL1

## SMC Low Profile Polyester

### Technical Data Sheet

Update : January 2016

#### Description :

5005-28 is a SMC reinforced with chopped glass fibres (25 mm).  
5005-28 is a non-pigmented SMC with high mechanical properties and good surface aspect.  
SMC 5005-28 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	2.1
• Cure time :	s	40
Density		1.95 NFT 51063
Shrinkage	%	-0.07 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	%	25
Resins content	%	19
Fillers content	%	54
Recycled Powder	%	0
Other products content	%	2

#### APPEARANCE

	Unit	
Rolls –		600/1500-
Boxes:	kg	1000
SMC width :	cm	150
Material support :	-	PE
Surface weight :	kg/m <sup>2</sup>	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	160
- Elastic modulus	MPa	9400
- Deviation at break	%	2.7
Impact test (Charpy)(**)	kJ/m <sup>2</sup>	91 ISO 179
Tensile test (***)		ISO 527
- Breaking stress	MPa	ND
- Elastic modulus	MPa	ND
- Elongation at break	%	ND

(\*) Average on the 1 pilot batches

(\*\*) Average on the 1 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		
- Elastic modulus	MPa		
- 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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MIXT COMPOSITES  
RECYCLABLES

## OTHER PROPERTIES

	<i>Unit</i>		<i>Test method</i>
HDT-A	°C	>230	ISO 75-2
IO	%	34-34.5	ISO 4589-2
UL 94		V0 (3.7mm)	ISO1210
R1 HL1 classification in progress			EN45545-2

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