

CLIMAWALL SYSTEM



ClimaWall is a low-temperature heating system using walls as large heating unit. The elements composing ClimaWall can be used to integrate the underfloor heating or to meet the whole thermal requirements of a building. ClimaWall main components are made up of polypropylene random copolymer (PP-R).

Description		Code	Description		Code
	Pre-assembled wall modules are made of random polypropylene, and they consist of 2 MF (male-female) manifolds, connected to each other through 6 pipes of Ø 10 mm. Width of the modules: 30 cm; possible combination by polyfusion welding.	0.6 m	5500060		FF Elbow Ø 20 mm 5502100
		1.5 m	5500150		MF Elbow Ø 20 mm 5502110
		2 m	5500200		FF Pipe Sleeve Ø 20 mm. 5502120
	Fixing bars made of plastic material. They shall be fixed onto the wall to hold wall modules.		5500005		F Plug Ø 20 mm 5502130
	Climawall piping is made of PPR random polypropylene, Ø 20-16 in 4-m bars, and it is used for the connection between manifolds and wall modules.		5501004		

Features	Value	U.M.	ISO	DIN
Viscosity value	450	cm ³ /g	ISO/R 1191	DIN 53728
Average molecular weight	5	x10 ⁵		
Melt-flow index			ISO 1133	DIN 53735
- MFI 190/5	0,5	g/10 min	Procedure 18	Code T
- MFI 230/2,16	0,4	g/10 min	Procedure 12	Code M
- MFI 230/5	1,5	g/10 min	Procedure 20	Code V
Melting range	150-154	°C		
Density at 23 °C	0,935	g/cm ³	ISO/R 1183	DIN 53479
Yield stress	24	N/mm ²	ISO/R 527	DIN 53455
Elongation	10	%	ISO/R 527	DIN 53455
Ultimate tensile stress	35	N/mm ²	ISO/R 527	DIN 53455
Elongation at tear	>50	%	ISO/R 527	DIN 53455
3.5% bending stress	20	N/mm ²	ISO 178	DIN 53452
Shear modulus	400	N/mm ²	ISO/R 537	DIN 53445
Elasticity modulus	800	N/mm ²	ISO 178	DIN 53457
Brinell H30 hardness	44	N/mm ²	ISO 2039	DIN 53456
Shore hardness	64		ISO 868	DIN 53505
Charpy impact test	20	KJ/m ²	ISO 179/2C	DIN 53453
Charpy impact strength	without break	KJ/m ²	ISO 179/2D	DIN 53453
Softening temperature				
- VST/A/50	125	°C	ISO/R 306	DIN 53460
- VST/B/50	60	°C		
Deformation resistance on heating			ISO 75	
	45	°C	Method A	DIN 53461
	75	°C	Method B	
Linear expansion coefficient	1,5x10 ⁻⁴	K ⁻¹		DIN 53752
Thermal conductivity coefficient	0,22	W/mK		DIN 52612
Reaction to fire	B1			DIN 4102

