



weberroof SPF

Waterproofing & thermal insulation roofing system



THERMAL
INSULATION



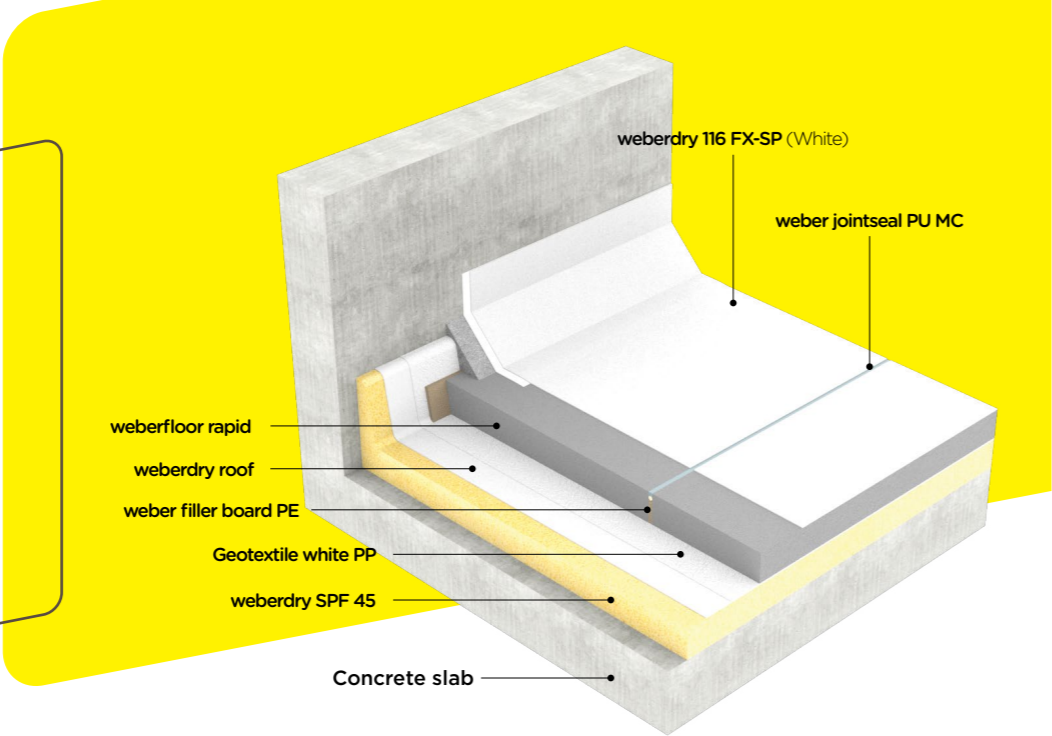
IMPERMEABILITY



SOLAR
REFLECTANCE

What is weberroof SPF?

It is a fully bonded long-lasting roofing system, combining high energy performance and low maintenance cost, to insulate and waterproof flat and low slope roofs.



The **weberroof SPF** is built up of different layers combined to form a perfect roofing system, that consists of a two-component spray applied polyurethane foam **weberdry SPF 45**, protected with a UV resistant protective coating **weberdry roof**, followed by a filter layer of **Geotextile white PP**, covered with screed to slope **weberfloor rapid** casted in bays using **weber filler board PE**, finally covered and protected by a cement based acrylic coating **weberdry 116 FX-SP** white with a solar reflective index value SRI> 78. The multi-layer system provides waterproofing, thermal insulation and finishing in one solution.





NO.	MATERIAL	MATERIAL DESCRIPTION
1	weberdry SPF 45	Two-component spray applied polyurethane foam to produce rigid foam with closed cells, density 44-48 kg/m³
2	weberdry roof	Mono component acrylic based waterproof coating for roof
3	Geotextile white PP	Polypropylene geotextile 125 g/m²
4	weberfloor rapid	Rapid drying, shrinkage controlled semi-dry floor screed
5	weber filler board PE	Polyethylene filler board
6	weber jointseal PU MC	One component polyurethane sealant and adhesive
7	weberdry 116 FX-SP (White)	Two-component flexible cement based acrylic waterproof coating

THERMAL CONDUCTIVITY & U-VALUE

The building’s roof components have different thermal properties that interact together to define the heat transfer with the external environment. One of these properties is the thermal conductivity, also called lambda (W/m.K), which defines the heat transmitted in a unit time through a unit thickness of the material. A low thermal conductivity indicates a good thermal insulating material. A thermal insulating system is characterized by its thermal transmittance or U-value.

MATERIAL	λ: THERMAL COND. (W/m K)	THICKNESS (mm)	R: THERMAL RESISTANCE (m²K/W)
RSe (exterior surface thermal resistance)			0.0380
weberdry 116 FX-SP (White)	0.190	1.2	0.0063
weberfloor rapid	1.400	70.0	0.0500
weberdry roof	0.190	1.2	0.0063
weberdry SPF	0.025	170.0	6.8000
Reinforced concrete	1.900	150.0	0.0789
RSi (interior surface thermal resistance)			0.2058
Total	Total	392.4	7.1854 (Inc. external and internal resistance)
U-value			0.14 W/m2K

ROOFING SYSTEM COMPARISON

	weberroof SPF	INVERTED ROOF BUILT UP (IRMA)	SINGLE-PLY MEMBRANE
Energy & sustainability 	<ul style="list-style-type: none">• Lower roof temperatures• Lower heating and cooling costs• No thermal bridges• Highest R-value insulation• Reflects solar radiation• Improve individual comfort	<ul style="list-style-type: none">• Indoor comfort and environment more difficult to achieve• Loss of thermal insulating properties with age as the insulation is not completely covered and protected from exposure to water and environmental conditions• Thermal bridges	<ul style="list-style-type: none">• Indoor comfort and environment more difficult to achieve• Build-up temperature• Thermal bridges
Weather impact 	<ul style="list-style-type: none">• Closed cell foam which resists water penetration• High wind uplift resistance	<ul style="list-style-type: none">• Joints and seams can allow water migration• Drain design is difficult and impact waterproofing property of system	<ul style="list-style-type: none">• Lots of seams• Frequent ponding• Leaks difficult to locate• Drain and slope design is difficult and impact waterproofing property of system
Installation 	<ul style="list-style-type: none">• Fast installation• Lower labor cost• Fully adhere to many different substrates• Self flashing system• Fully mechanized installation procedures	<ul style="list-style-type: none">• Costly• More labor needed• Not conforms to irregular substrate shapes• Lots of terminations and flashings	<ul style="list-style-type: none">• Not conforms to irregular substrate shapes• Seams and terminations are potential leakage points
Repair & maintenance 	<ul style="list-style-type: none">• Low maintenance• Multiple recoating at intervals possible	<ul style="list-style-type: none">• Difficult to inspect and repair• Costly	<ul style="list-style-type: none">• Difficult to inspect and repair



Benefits

- Quick and easy insulated, waterproofed roof
- Insulating properties meeting local and international green building requirements
- Joint free thermal insulation and waterproofing system
- Single submittal and approval for the entire system
- Fully bonded multilayer waterproofing
- Roof tiles not required
- Lower energy consumption due to better insulation
- Low maintenance & easy repair
- Topcoat EPD certified in accordance with EN 15804 and ISO 14025
- Topcoat with an SRI > 78 to prevent heat island effect on roof
- Quality controlled application of the system through authorized applicators certified by DCL



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