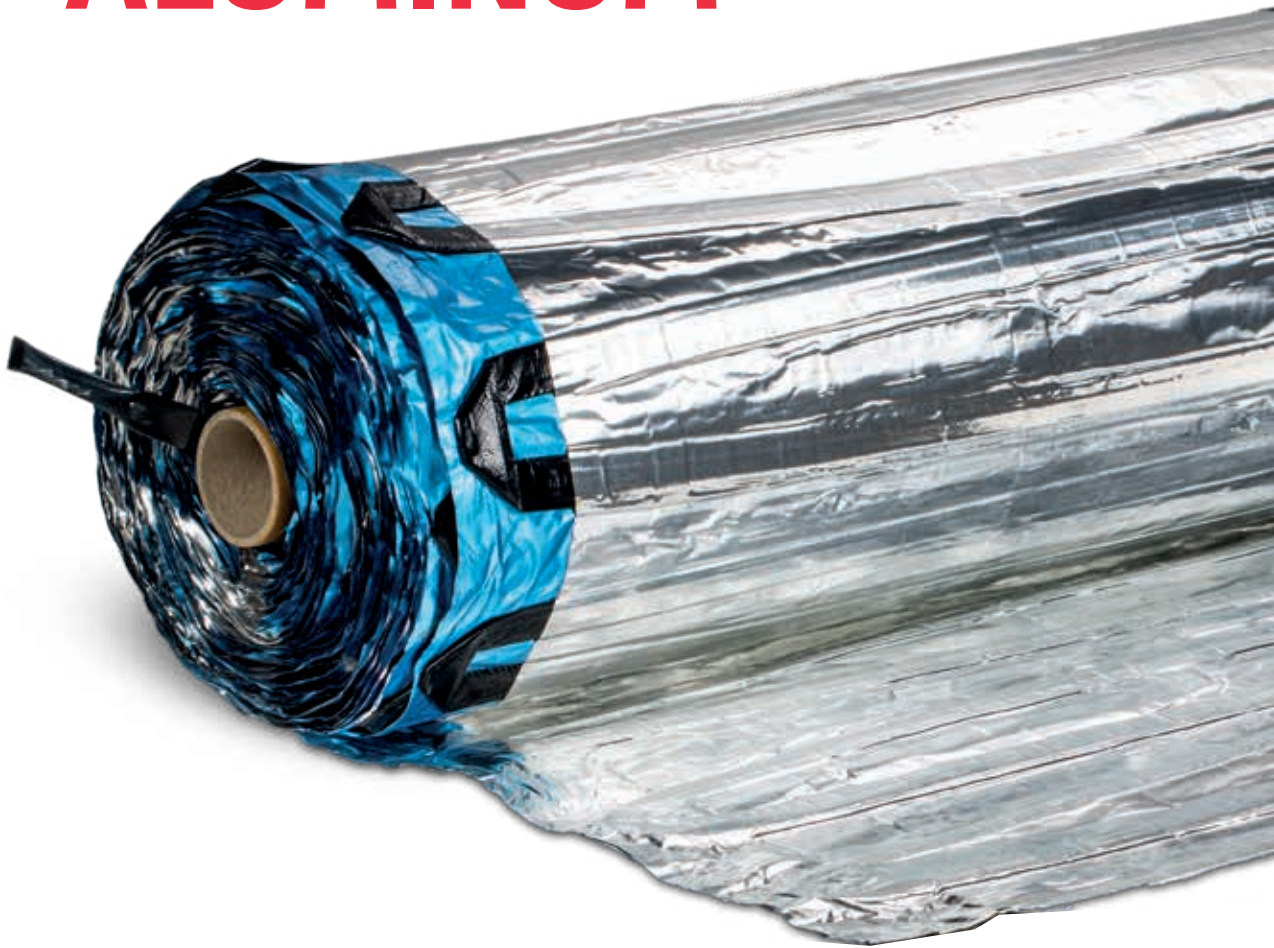


# *TECHNICAL DATA SHEET* **BLACK ALUMINUM**



## **Index**

Product breakdown .....	2
Guarantees and certifications.....	2
Dimensions and characteristics .....	3
Type of installation .....	6
Type of installation for renovation .....	7

## BLACK ALUMINUM



The innermost part of the **Black Aluminum** Warmset hank is composed of the company's patented technology plus a **polypropylene sheath** and an **aluminum covering** specially designed to heat **floors installed by dry-laying**.

This **underfloor heating** product cannot be installed in cement screeds or covered with glue, but yields its best with **parquet** and laminated wood floors installed by dry-laying or with floating floors, **vinyl floors** or **carpet**. These materials can be installed in direct contact with Warmset technology, thus guaranteeing that the system is fully up and running fast and a **uniform spread of heat**.



## GUARANTEES AND CERTIFICATIONS



# DIMENSIONS AND CHARACTERISTICS

## BLACK ALUMINUM

COVERED AREA (m <sup>2</sup> )	DIMENSION (LINEAR METER)	65W/m <sup>2</sup>		85W/m <sup>2</sup>	
		MODEL	POWER (W) AMP(A) / OHM(Ω)	MODEL	POWER(W) AMP(A) / OHM(Ω)
0.5	0,5X1	WHA-0.5-65	32.5W 0.14A / 1627.7Ω	WHA-0.5-85	42.5W 0.18A / 1170Ω
1.0	0,5X2	WHA-1-65	65W 0.28A / 813.8Ω	WHA-1-85	85W 0.36A / 622Ω
1.5	0,5X3	WHA-1,5-6	97.5W 0.42A / 542.6Ω	WHA-1.5-85	127.5W 0.55A / 415Ω
2.0	0.5X4	WHA-2-65	130W 0.57A / 406.9Ω	WHA-2-85	170W 0.74A / 311Ω
2.5	0.5X5	WHA-2,5-65	162.5W 0.71A / 325.5Ω	WHA-2.5-85	213W 0.92A / 249Ω
3.0	0.5X6	WHA-3-65	195W 0.85A / 271.3Ω	WHA-3-85	255W 1.11A / 207Ω
3.5	0.5X7	WHA-3,5-65	227.5W 0.99A / 232.5Ω	WHA-3.5-85	298W 1.29A / 178Ω
4.0	0.5X8	WHA-4-65	260W 1.13A / 203.5Ω	WHA-4-85	340W 1.66A / 1170Ω
4.5	0.5X9	WHA-4,5-65	292.5W 1,278A / 180.9Ω	WHA-4.5-85	383W 0,18A / 1170Ω
5.0	0.5X10	WHA-5-65	325W 1.41A / 162.8Ω	WHA-5-85	425W 1.85A / 125Ω
6.0	0.5X12	WHA-6-65	390W 1.70A / 135.6Ω	WHA-6-85	510W 2.21A / 104Ω
7.0	0.5X14	WHA-7-65	455W 1.98A / 116.3Ω	WHA-7-85	595W 2.58A / 88.9Ω
8.0	0.5X16	WHA-8-65	520W 2.26A / 101.7Ω	WHA-8-85	680W 2.95A / 77.8Ω
9.0	0.5X18	WHA-9-65	585W 2.54A / 90.4Ω	WHA-9-85	765W 3.33A / 69.2Ω
10.0	0.5X20	WHA-10-65	650W 2.83A / 81.4Ω	WHA-10-85	850W 3.70A / 62.2Ω
12.0	0.5X24	WHA-12-65	780W 3.39A / 67.8Ω	WHA-12-85	1020W 4.43A / 51.8Ω
14.0	0.5X28	WHA-14-65	910W 3.96A / 58.1Ω	WHA-14-85	1190W 5.17A / 44.5Ω

# DIMENSIONS AND CHARACTERISTICS

## BLACK ALUMINUM

COVERED AREA (m <sup>2</sup> )	DIMENSION (LINEAR METER)	100W/m <sup>2</sup>		120W/m <sup>2</sup>	
		MODEL	POWER (W) AMP(A) / OHM(Ω)	MODEL	POWER (W) AMP(A) / OHM(Ω)
0.5	0,5X1	WHA-0.5-100	50W 0.21A / 1058Ω	WHA-0.5-120	60W 0.26A / 882Ω
1.0	0,5X2	WHA-1-100	100W 0.43A / 529Ω	WHA-1-120	120W 0.52A / 441Ω
1.5	0,5X3	WHA-1.5-100	150W 0.65A / 353Ω	WHA-1.5-120	180W 0.78A / 294Ω
2.0	0.5X4	WHA-2-100	200W 0.86A / 265Ω	WHA-2-120	240W 1.04A / 220Ω
2.5	0.5X5	WHA-2.5-100	250W 1.08A / 212Ω	WHA-2.5-120	300W 1.30A / 177Ω
3.0	0.5X6	WHA-3-100	300W 1.30A / 177Ω	WHA-3-120	360W 1.56A / 147Ω
3.5	0.5X7	WHA-3.5-100	350W 1.52A / 151Ω	WHA-3.5-120	420W 1.83A / 126Ω
4.0	0.5X8	WHA-4-100	400W 1.73A / 133Ω	WHA-4-120	480W 2.08A / 110Ω
4.5	0.5X9	WHA-4.5-100	450W 1.95A / 118Ω	WHA-4.5-120	540W 2.34A / 98.0Ω
5.0	0.5X10	WHA-5-100	500W 2.17A / 106Ω	WHA-5-120	600W 2.60A / 88.7Ω
6.0	0.5X12	WHA-6-100	600W 2.60A / 88.7Ω	WHA-6-120	720W 3.13A / 73.5Ω
7.0	0.5X14	WHA-7-100	700W 3.04A / 75.6Ω	WHA-7-120	840W 3.65A / 63.0Ω
8.0	0.5X16	WHA-8-100	800W 3.47A / 66.2Ω	WHA-8-120	960W 4.17A / 55.1Ω
9.0	0.5X18	WHA-9-100	900W 3.91A / 58.8Ω	WHA-9-120	1080W 4.69A / 53.8Ω
10.0	0.5X20	WHA-10-100	1000W 4.34A / 52.9Ω	WHA-10-120	42.5W 0.18A / 1170Ω
12.0	0.5X24	WHA-12-100	1200W 5.21A / 44.1Ω	WHA-12-120	1440W 6.26A / 36.7Ω
14.0	0.5X28	WHA-14-100	1400W 6.08A / 37.8Ω	WHA-14-120	1680W 7.3A / 31.4Ω

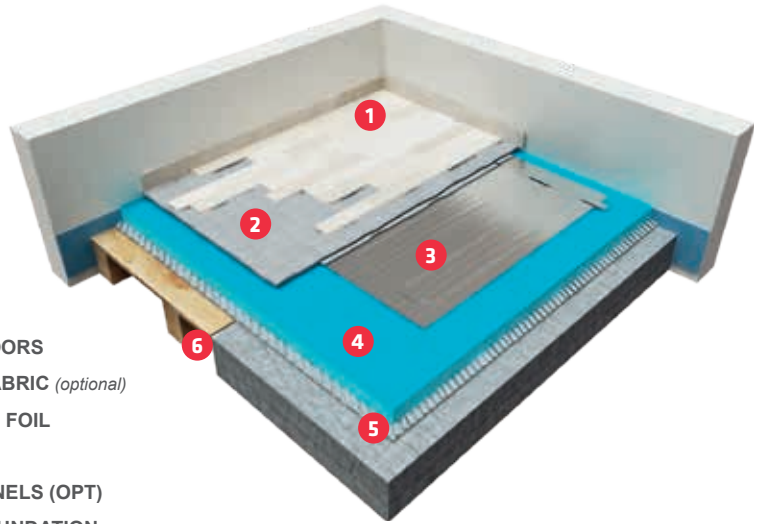
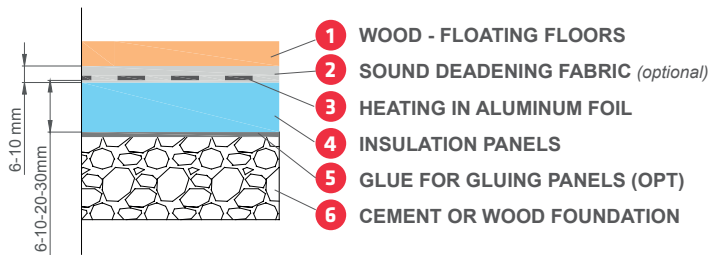
# DIMENSIONS AND CHARACTERISTICS

## BLACK ALUMINUM

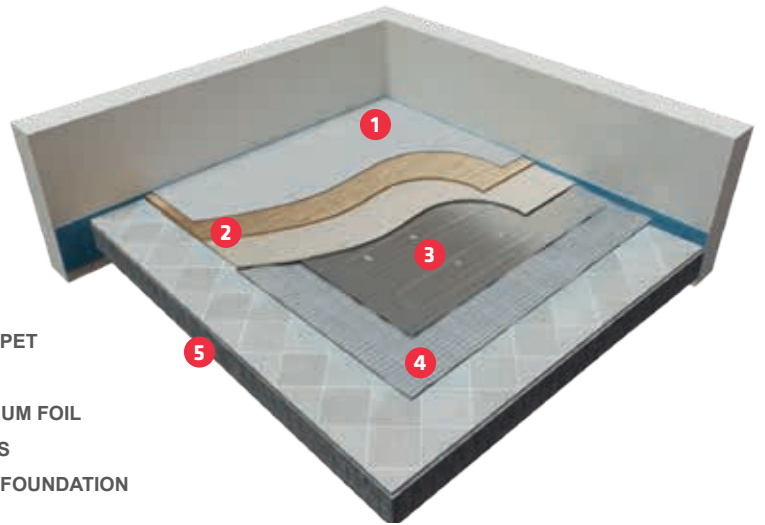
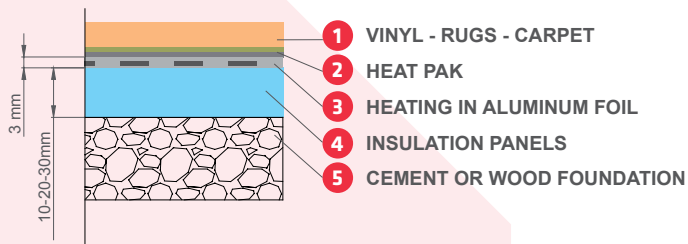
COVERED AREA (m <sup>2</sup> )	DIMENSION (LINEAR METER)	140W/m <sup>2</sup>	
		MODEL	POWER (W) AMP(A) / OHM(Ω)
0.5	0,5X1	WHA-0.5-140	70W 0.30A / 756Ω
1.0	0,5X2	WHA-1-140	140W 0.61A / 378Ω
1.5	0,5X3	WHA-1.5-140	210W 0.91A / 252Ω
2.0	0.5X4	WHA-2-140	280W 1.22A / 189Ω
2.5	0.5X5	WHA-2.5-140	350W 1.52A / 151Ω
3.0	0.5X6	WHA-3-140	420W 1.83A / 126Ω
3.5	0.5X7	WHA-3.5-140	490W 2.13A / 108Ω
4.0	0.5X8	WHA-4-140	560W 2.43A / 94.5Ω
4.5	0.5X9	WHA-4.5-140	630W 2.74A / 84.0Ω
5.0	0.5X10	WHA-5-140	700W 3.04A / 75.6Ω
6.0	0.5X12	WHA-6-140	840W 3.65A / 63.0Ω
7.0	0.5X14	WHA-7-140	980W 4.26A / 54.0Ω
8.0	0.5X16	WHA-8-140	1120W 4.87A / 47.2Ω
9.0	0.5X18	WHA-9-140	1260W 5.48A / 42.0Ω
10.0	0.5X20	WHA-10-140	1400W 6.08A / 37.8Ω
12.0	0.5X24	WHA-12-140	1680W 7.30A / 31.5Ω
14.0	0.5X28	WHA-14-140	1960W 8.52A / 27.0Ω

# TYPE OF INSTALLATION BLACK ALUMINUM

## WOOD - FLOATING FLOORS



## VINYL FLOORS, RUGS, CARPET



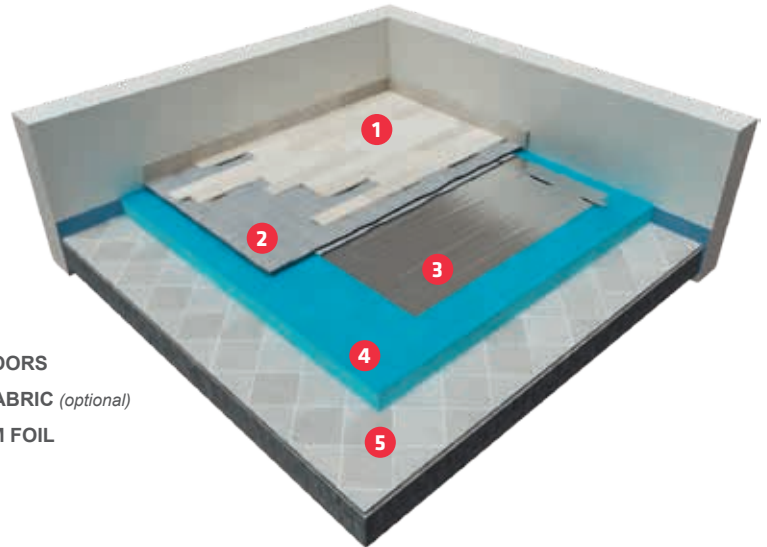
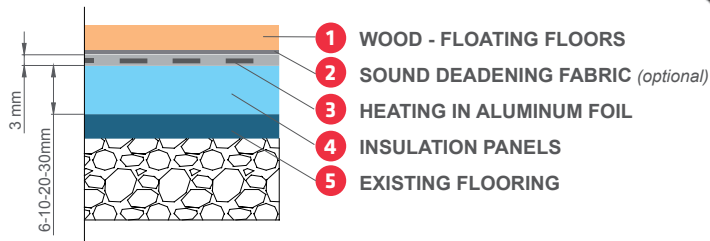
## PROJECTS



For the presentation of the 2014 Pirelli Calendar at the contemporary art museum, Hangar Bicocca in Milan, an underfloor electric heating system was installed over a total surface area of 4000 m2.

# TYPE OF INSTALLATION FOR RENOVATION BLACK ALUMINUM

## WOOD - FLOATING FLOORS



## VINYL FLOORS, RUGS, CARPET

