AERIS

SUPERCEL
building phenolic insulation

SUPERCEL® Aeris comprises a high performance rigid thermoset with a **phenolic resin insulation core** autohesively bonded with an **aluminum vapor barrier foil facer** on the upper side and a **micro-perforated aluminum foil facer** on the lower side.

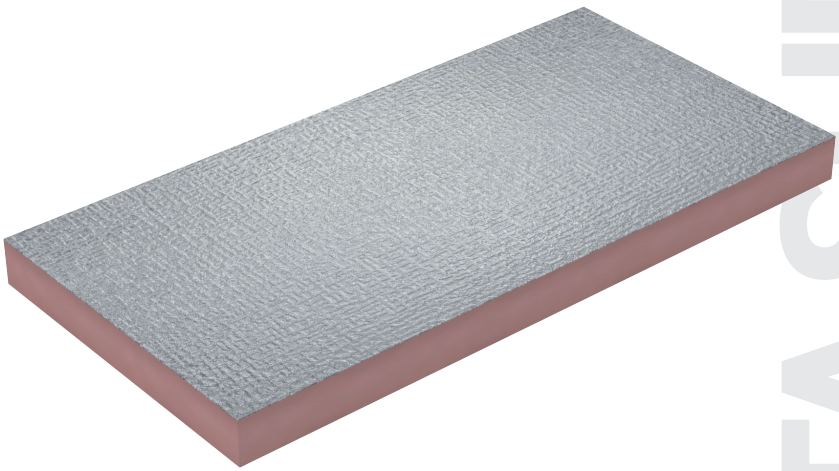
CE
EN 13166

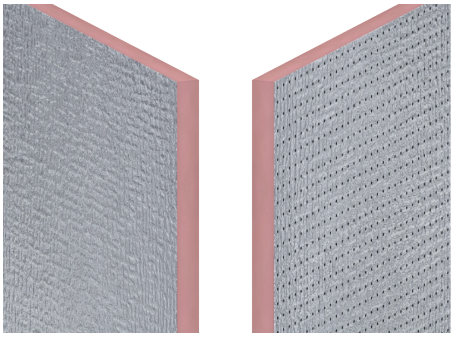
SECURITY

INSULATION

BIM ready

EPD VERIFIED
CERTIFICATE EPD





SUGGESTED APPLICATIONS

- Insulation of cavity walls
- Insulation of ventilated facades
- Insulation of heated floors
- Insulation of ceilings or roofs

PANEL SIZE:

- 1200 x 600 mm **(STANDARD)**
- 1200 x 1200 mm
- 1200 x 2400 mm

THERMAL CONDUCTIVITY λ_D	0,019 W/mK / 0,021 W/mK
REACTION TO FIRE EUROCLASS	B - s_1, d_0
PROFILES	Standard flat profile edges or tongue and groove fastening system
FACINGS	Aluminum vapor barrier foil facer / Micro-perforated aluminum foil facer

ITEM SPECIFICATION

Thermal insulation performed using **SUPERCEL® AERIS** - a closed cell phenolic foam boards, with dimensions .....x..... mm, thickness ..... mm, coated with an **aluminum vapor barrier foil facer** on the upper sider and a **micro-perforated aluminum foil facer** on the lower side, CE marked according to the EN13166 standard, EPD verified (Environmental Product Declaration), having a declared thermal conductivity λ_D=..... W/mK, a declared thermal resistance: R_D=..... m^2K/W, a reaction to fire Euroclass B-s1,d0 according to EN13501-1; with compressive strength ⩾120 kPa, for the insulation of cavity walls, ventilated facades or heated floors (...)*.

*it is advisable to complete the specifications by indicating the most relevant characteristics and performances for the specific application.

TECHNICAL DATASHEET

Resine Isolanti O.Diena S.r.l. | Viale Zanotti, 86 27027 Gropello Cairoli (PV)
T. + 39 0382 81 59 79 | info@resineisolanti.com | www.resineisolanti.com

AERIS

SUPERCEL
building phenolic insulation

TECHNICAL CHARACTERISTICS (TYPICAL VALUES)

HARMONIZED PRODUCT STANDARD
EN 13166:2012+A2:2016 - THERMAL INSULATION FOR BUILDINGS - FACTORY MADE PHENOLIC FOAM PRODUCTS (PF)

Thickness (d_N)	mm	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**	**130**	**140**	**150**	**160**
Thermal conductivity λ_D	**W/mK**	**0,021**						**0,019**								
Thermal resistance R	m^2K/W	0,95	1,43	1,90	2,38	2,86	3,33	4,21	4,74	5,26	5,79	6,32	6,84	7,37	7,89	8,42
Thermal resistance R_D	**W/m^2K**	**0,95**	**1,40**	**1,90**	**2,35**	**2,85**	**3,30**	**4,20**	**4,70**	**5,25**	**5,75**	**6,30**	**6,80**	**7,35**	**7,85**	**8,40**
Thermal Trasmittance U	W/m^2K	1,05	0,71	0,53	0,43	0,35	0,30	0,24	0,21	0,19	0,17	0,16	0,15	0,14	0,13	0,12
Durability of Thermal Resistance against heat, weathering, aging / degradation					Determination of the aged values of thermal resistance and thermal conductivity										R_D & λ_D	

PROPERTIES	NORMS	UNITS	VALUES	CODE/ CLASS
Thickness (d_N)	-	mm	**20** **30** **40** **50** **60** **70** **80** **90** **100** **110** **120** **130** **140** **150** **160**	
Thickness tolerance	EN 823	mm	± 2 | -2/+3 | -2/+5	T1
Length	EN 822	mm	600 to 2400	L_i
Width	EN 822	mm	1200	W_i
Compressive strength	EN 826	kPa	⩾ 120	CS(Y)120
Dimensional stability	EN 1604	%		DS(70,90); DS(-20,-)
Variation thickness: 48h at 70±2°C & 90±5% R.H. 48h a -20°C			⩽ 1,5 % in reduction	
Variation length and width: 48h at 70±2°C & 90±5% R.H. 48h a -20°C			⩽ 1,5 % in absolute value	
Short term water absorption	EN 1609	kg/m^2	⩽ 0,75	WS3
Long term water absorption	EN12087	kg/m^2	⩽ 1,00	WL(P)4
Reaction to fire	EN 13501-1	Euroclasse	B s_1 d_0	RtF
Water vapor permeability and transmission	EN 12086	μ	> 10.000	MU
Apparent mass	EN 1602	kg/m^3	37,5 ± 2,5	AD
Operating temperature range	-	°C	-50 / +120	ST(-) / ST(+)
Specific heat capacity	-	J/kgK	1750	c

TECHNICAL DATA SHEET

Resine Isolanti O.Diena S.r.l. | Viale Zanotti, 86 27027 Gropello Cairoli (PV)
T. + 39 0382 81 59 79 | info@resineisolanti.com | www.resineisolanti.com

AERIS

SUPERCEL
building phenolic insulation

TECHNICAL DATASHEET

INDICATIONS FOR USE

When using boards from the **SUPERCEL® Building Insulation** product range, in phenolic foam, it is advisable to keep in mind the following good practices:

- The boards must be stored, even when on site, indoors or protected by waterproof sheets, in their original packaging, dry and protected from bad weather;
- The boards must not be bonded to degraded supports;
- The boards must not be used if damaged or deteriorated;
- The boards were not designed with the intention of providing a finished covering;
- The boards must be cut using mechanical cutting.

Any small areas of non-adhesion between the facing and the foam may originate from the production cycle. These areas do not affect the physical-mechanical properties of the panels in any way. The same applies to the detachment areas caused by the installation phases relating to the bonding and leveling of the slabs when they are beaten with a trowel (or similar). Areas of non-adhesion between the facing and the foam must be removed with a cutter before proceeding to subsequent phases.

PACKING LIST

Thickness [mm]	Format [mm]	Bards / pack	m^2 / pack	Pack / pal.	m^2 / pal.
40	1200x600	6	4,32	20	86,40
50	1200x600	8	5,76	12	69,12
60	1200x600	5	3,60	16	57,60
70	1200x600	7	5,04	10	50,40
80	1200x600	5	3,60	12	43,20
90	1200x600	5	3,60	10	36,00
100	1200x600	4	2,88	12	34,56
120	1200x600	4	2,88	10	28,80
130	1200x600	3	2,16	12	25,92
140	1200x600	4	2,88	8	23,04
150	1200x600	4	2,88	8	23,04
160	1200x600	3	2,16	10	21,60

NOTES

The boards of the **SUPERCEL® Building Insulation** product range, in expanded phenolic foam, are considered articles with reference to the European regulations (Reg. 1906/2007/EC - REACH), therefore they do not require safety data sheets.
When using the product, it is advisable to wear protective gloves and glasses and to comply with the workplace safety regulations.
The information and instructions reported above, although corresponding to our best knowledge, are to be considered, in any case, purely indicative; therefore, before using the product, anyone who intends to use it is required to establish whether or not it is suitable for the intended use, and in any case, assumes any responsibility that may arise from its use.
The most updated technical data sheet is available on the website at the following address: www.resineisolanti.com.

Resine Isolanti O.Diena S.r.l. | Viale Zanotti, 86 27027 Gropello Cairoli (PV)
T. + 39 0382 81 59 79 | info@resineisolanti.com | www.resineisolanti.com