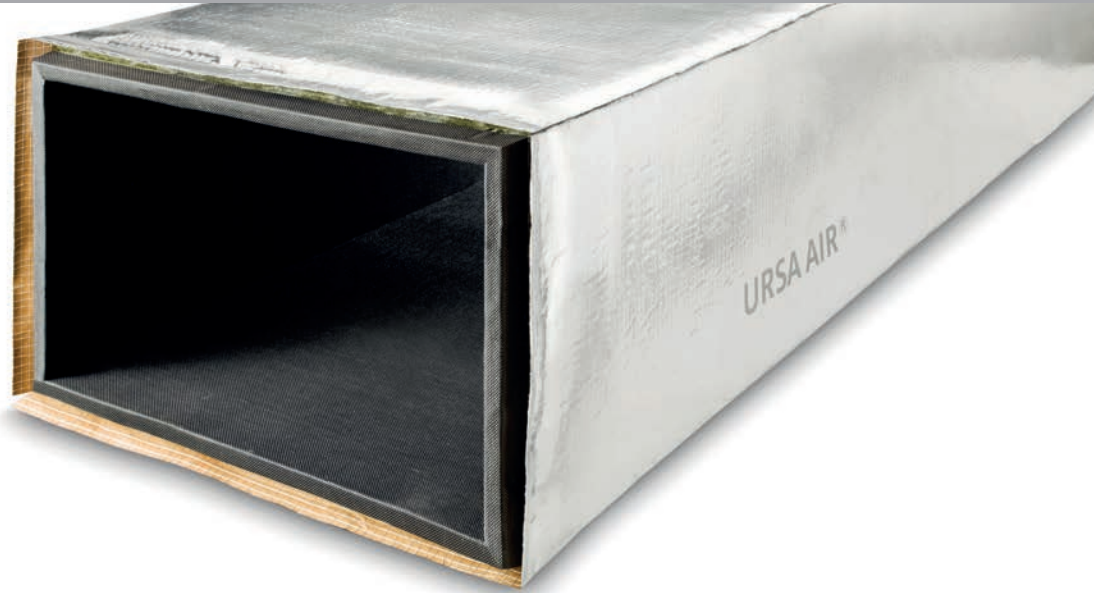
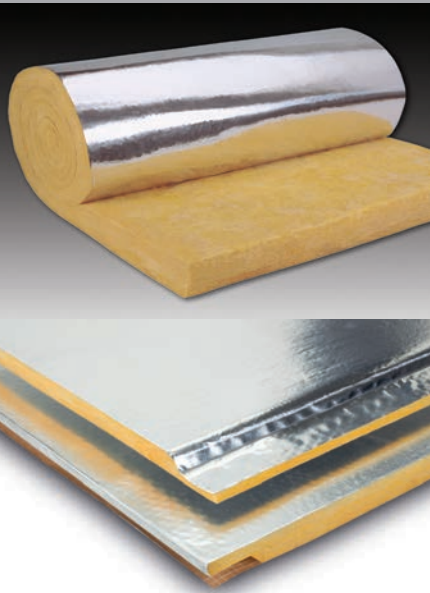


**URSA AIR®**



Insulation and construction of systems  
for air-conditioning and ventilation ducts



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	Thermal insulation	Acoustical performance	Fire reaction	Pages
<b>Construction of ducts panels</b>				
URSA AIR ZERO A2	✓✓✓	✓✓✓✓	✓✓✓✓	14
URSA AIR ZERO	✓✓✓	✓✓✓✓	✓✓✓	15
URSA AIR AI-AI	✓✓✓	✓	✓✓✓	13
URSA AIR AI-dB	✓✓✓	✓✓✓	✓✓✓✓	14
URSA AIR AI-TECH2	✓✓✓	✓	✓✓✓✓	15
<b>Rolls for external insulation of metallic ducts</b>				
URSA AIR Aluminum roll	✓✓✓✓		✓✓✓	16
URSA AIR Reinforced aluminum roll	✓✓✓✓		✓✓✓	17
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<b>Rolls for internal insulation of metallic ducts</b>				
URSA AIR ZERO IN	✓✓✓	✓✓✓✓	✓✓✓✓	18

Optimum - ✓✓✓✓  
 Very good - ✓✓✓  
 Good - ✓



### ■ URSA, THE COMPANY

*URSA, a leader company in insulation products in Europe.*

URSA is a manufacturer of two different types of insulation products. Extruded polystyrene **URSA XPS** is an excellent thermal insulation product with high mechanical performance. Mineral wool products as **URSA GLASSWOOL** and **URSA TERRA** are optimum thermal and acoustic insulation products, used in many different applications for insulation of buildings. The range **URSA AIR** includes mineral wool panels for construction of air conditioning ducts and mineral wool rolls for insulation of metallic ducts.

### ■ QUALITY MARKS

Quality certified



Healthiness certified



Quality tested



Associations

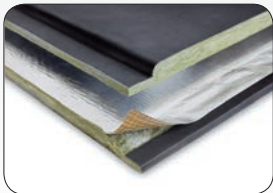


# URSA AIR, the products



*URSA AIR is the solution by URSA for air conditioning ducts installations. URSA AIR mineral wool provides excellent thermal and acoustical insulation levels, together with the non – combustibility of the product itself.*

URSA AIR range of products includes:



- **URSA AIR panels:** Mineral wool panels for construction of ventilation and air conditioning ducts. The rigidity and facings of the panels allow the air to flow at high velocity with less pressure losses and high acoustical attenuations.



- **URSA AIR rolls:** Mineral wool rolls used in external thermal insulation of metallic ducts.



- **URSA AIR Zero In:** Mineral wool rolls faced with an acoustic fabric that can be used for insulation of metallic ducts from inside, securing also reduced propagation of noise through the ducts.



- **URSA AIR tools:** Range of tools used for cutting and construction of ducts from URSA AIR panels. New **EASY TOOL** blades ensure a more precise and softer cutting.



**Minimum thermal losses, maximum energy efficiency.** Excellent thermal resistance of **URSA AIR** products. New thermal conductivity values depending on temperature, in accordance with **EN 14.303**.



**Excellent acoustical absorption, minimum sound propagation.** The excellent acoustical absorption of **URSA AIR Zero, URSA AIR Zero A2** and **URSA AIR Zero In** allows to reduce the noise propagated through the duct.



**Excellent fire performance, NON-combustibility.** **URSA AIR** reaction to fire class is **B s1 d0**. **URSA** offers also a range of incombustible products, with reaction to fire class of **A2 s1 d0 (EN 14.303)**, thanks to their fireproof facings and the incombustible nature of the inorganic mineral origin raw material (**URSA AIR AI-TECH2, URSA AIR Zero A2, URSA AIR Zero In, URSA AIR M3603**).



**Indoor air quality.** Facings of **URSA AIR** products reduce the dirt accumulated inside ducts to a minimum level, and allows the cleaning of the duct. **URSA AIR** mineral wool is not a nutritive element for proliferation of neither fungus nor bacteria. Antimicrobial treatment of inner surface of the product also inhibits the growth of bacteria colonies by deposition of organic particles.



**Excellent cutting and installation performance.** The new range of tools with **EASY TOOL** blades ensures a more precise and softer cutting. **URSA AIR's** facings have been developed to optimize cutting performance and all of them have the male shiplap edge edged with inner facing.

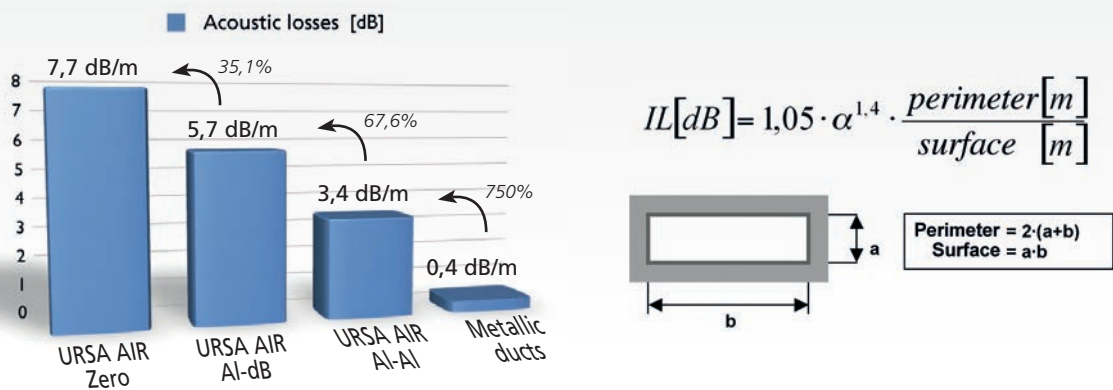
# Excellent acoustical absorption



URSA presents a range of products that can reduce the noise propagated through ducts. It is the perfect solution to reduce and dampen the noises that normally occurs due to air flow that originates from the air conditioning equipment or from other rooms where air is supplied by the same duct.

- **URSA AIR Zero** and **URSA AIR Zero A2** are mineral wool panels for construction of ducts faced with a special acoustic inner fabric, called **Zero** with excellent acoustical absorption properties,  $\alpha_w = 0,80$ . Both of them are absorbent products of type B according to **EN 11.654** standard. Type B represents the maximum level of acoustical absorption that is reached in the market by similar products and this acoustic performance is even the best at high frequencies.
- **URSA AIR AI-dB** panel is a mineral wool panel for construction of ducts covered from inside with a pure aluminum micro-holes facing. This facing provides **URSA AIR AI-dB** with a very good acoustical absorption ( $\alpha_w = 0,65$ ) and has a very competitive price.
- **URSA AIR Zero In** is the solution for insulation of metallic ducts from inside. The black acoustic inner facing of the product ensures that **URSA AIR Zero In** contributes in reduction of the noise propagated through the duct. ( $\alpha_w = 0,55H$ ).

Reduction of noises propagated through ducts is proportional to the acoustic absorption. The formulas to calculate the level of acoustic power loss per each meter of duct is:



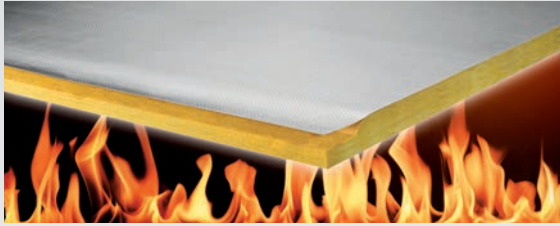
It is possible to calculate the reduction of noise of ducts depending of the size through this formula and using the results of acoustic absorption of **URSA AIR Zero**:

Acoustical performance of URSA AIR Zero:						
Frequency (Hz)	125	250	500	1000	2000	
Acoustic absorption coefficient $\alpha$	0,35	0,60	0,70	1,00	1,00	
Acoustic reduction in a straight duct [dB/m]						
Size	200x200	4,83	10,27	12,75	21,00	21,00
	300x400	2,82	5,99	7,43	12,25	12,25
	400x500	2,17	4,62	5,74	9,45	9,45
	400x700	1,90	4,04	5,01	8,25	8,25
	500x1000	1,45	3,08	3,82	6,30	6,30

## Optimum fire performance



Tested its both sides, URSA AIR products have a reaction to fire equal or better than B s1 d0.



Protection of people in a building in the case of a fire and measures to avoid fires are and have been always one of the most important aspects in design and construction of buildings. Reaction to fire property gives specific information on the performance of products in case of a fire.

According to Euroclasses, products can represent a behavior classified from F (highly combustible products) to A (incombustible products). URSA AIR panels for construction of ducts shows a reaction to fire behavior of B s1 d0.

- **Class B** specifies that the energetic contribution due to the combustion of aluminum kraft facing is minimum, whereas the mineral wool core is completely incombustible.
- **S1 class** specifies that facings (and the product) do not produce smoke during burning.
- **D0 class** specifies that the product does not spread drops of flame. URSA AIR panels are classified as B s1 d0 in terms of reaction to fire that is also declared in the **CE Certificate** and in the **Voluntary Quality Certificate (AENOR)**.

One of the novelties in the EN 13.403 standard is the possibility of testing products by both surfaces. This is useful in case of products that might have different performance depending on the face tested. In case of URSA AIR panels, facings of the two sides are different, and they can assume different fire performances. That is why URSA has tested the products by both sides and all results are B s1 d0 (Except in the incombustible panels URSA AIR AI-TECH2 and URSA AIR Zero A2, in which case reaction to fire by both sides is better, A2 s1 d0).

For those installations where an incombustible reaction to fire classification is needed, URSA proposes its A2 s1 d0 range of products.



Lawyers College of Barcelona.  
Ducts were done with URSA AIR AI-TECH2.

- ✓ **URSA AIR P8058 AI-TECH2 Panel:** Mineral wool panel with an aluminum fabric as the external facing, with an esthetical appearance (suitable for ducts that are not hidden by ceiling). Inner facing is a reinforced pure aluminum. Reaction to fire **A2 s1 d0**, incombustible.
- ✓ **URSA AIR Zero A2:** Mineral wool panel with an aluminum fabric as the external facing, with an esthetical appearance (suitable for ducts that are not hidden by ceiling). Inner facing is the Zero fabric that allows to have an excellent acoustical absorption. Reaction to fire **A2 s1 d0**, incombustible.
- ✓ **URSA AIR Pure incombustible aluminum M3063:** Mineral wool roll for insulation of metallic ducts by outside, with a pure aluminum facing. Reaction to fire **A2 s1 d0**, incombustible.
- ✓ **URSA AIR Zero In:** Mineral wool roll for insulation of metallic ducts by inside. It allows to reduce the propagation of noises through duct and insulate metallic ducts that will be sight (not hidden by ceilings). Reaction to fire **A2 s1 d0**, incombustible.

# Healthiness of the installations



The quality of the air distributed inside the places through a network of air conditioning ducts must always be excellent. It is very important that the potential contaminants are reduced to a minimum. With URSA AIR products, the maximum indoor air quality levels are reached easily.



✓ URSA GLASSWOOL, URSA TERRA and URSA AIR mineral wool is certified by EUCEB, that accurately confirms the conformity to NOTA Q and European Directive 97/69/CE that shows that URSA products are **neither classified** as carcinogenic in accordance with the criteria of the same directive nor according to the criteria of the **International Agency of Cancer (IARC)**.



✓ Besides, according to the tests of EN 13.403, the levels of particles' dragging are completely ignorable, being much lower than the results obtained with other products in the market and **100 times lower than the limits set for the market by the same norm** (the measurements are between 0.012% and 0.1% of the limits). The test for erosion and emission of the particles is realized by creating a system of ducts where air circulates with a velocity of 18,6 m/s throughout the interior of the same (from 2 to 3 times more the regular air-velocity in the duct installations).

✓ Male shiplap edge of the panels of all URSA AIR panels is re-bordered by its interior covering.

✓ The accumulation of the dirt in the inner coverings of the URSA AIR products is at minimum levels. Besides, the **special acoustic fabric of ZERO** is a lot denser than similar products in the market that hinders the accumulation of the dirt inside of the duct.



✓ All air-conditioning ducts constructed with URSA AIR are easy to clean simply by usual processes without the interiors to erode or wear out. This is also demonstrated in the URSA AIR AMBIENTCARE report for URSA AIR Zero or in the document of Hygiene Group of Air-rooms Networks (GHR) of Scientific Committee and Acclimatization Industry Technicians (COSTIC) for the URSA AIR AI-AI and AI-dB panels.



✓ The mineral wool panels of URSA AIR do not provide nutritive environment for proliferation of any type of fungus or bacteria thanks to its inorganic mineral nature. Moreover, as a result of the anti-microbiological treatment applied to their internal facings, the formation of the bacterial colonies by the presence of organic particles on the surface is inhibited. This property has also been confirmed by different tests (AATCC100, ASTM E2149, JIS Z2801, ISO 20743, EN 13403) realized by AITEX for the products with the ZERO fabric. Different varieties of the bacteria that the tests were conducted are: **Estaphylococcus aureus y Escherichia Coli (E.COLI)**.



Oviedo Central University Hospital (Asturias/ SPAIN)  
The air conditioning ducts are constructed with URSA AIR:  
M2021 Aluminum Roll.

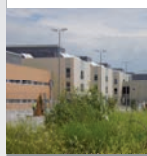


## Distinguished Quality in the building sites

To ensure quality indoor air is one of the most important objectives of URSA AIR Products, that is already proven by the high number of healthcare centers that have been insulated by or that have duct systems constructed with URSA AIR products.



Examples of healthcare centers that have metal ducts system insulated by URSA AIR Roll are:



### Torrejón de Ardoz Hospital

Location: Torrejón de Ardoz (Madrid / SPAIN)  
Developer: COMUNIDAD DE MADRID  
Building firm: FCC  
Product: URSA AIR M2021 Aluminum Roll



### Vinalopó Hospital

Location: Elche (Alicante / SPAIN)  
Developer: SERVASA  
Building firm: GRUPO CÍVICA  
Product: URSA AIR M2021 Aluminum Roll



### Asturias Central University Hospital

Location: Oviedo (Asturias / SPAIN)  
Developer: PRINCIPADO DE ASTURIAS  
Building firm: SAN JOSÉ  
Product: URSA AIR M2021 Aluminum Roll



Reference projects of Healthcare centers with duct systems made of URSA AIR mineral wool panel:



### Healthcare Center 'La Mejostilla'

Location: Cáceres (Extremadura / SPAIN)  
Developer: SERVICIO EXTREMEÑO DE SALUD  
Building firm: LUNTEC, S.L.  
Product: URSA AIR P5858 AI-AI Panel



### Private Hospital Torrellano

Location: Elche (Alicante / SPAIN)  
Developer: GRUPO CÍVICA (IMED)  
Building firm: ORTÍZ E HIJOS (COSNT. MOLDAVITA)  
Product: URSA AIR Zero + URSA AIR P5858 AI-AI Panel



### Lardero Hospital for Mental Diseases

Location: La Rioja (La Rioja / SPAIN)  
Developer: CONSEJERÍA DE SALUD  
Building firm: JOSE MARTÍN  
Product: URSA AIR P5858 AI-AI Panel

Other examples of building sites of Hospitals are Healthcare Center HUESCAR (GRANADA) or the Healthcare Center Mairena (Sevilla), built using URSA AIR P5858 AI-AI Panel; Healthcare center Las Letanías (Sevilla) built using URSA AIR Zero, or Figueres Hospital built with URSA AIR P6058 AI-dB.

Other reference objects, where installations have been built with URSA AIR products:



### TECNOCAMPUS Mataró

Location: Mataró (Barcelona / SPAIN)  
Developer: MATARÓ CITY HALL  
Building firm: COPCISA  
Product: URSA AIR P6058 AI-dB Panel



### AQUILA School

Location: Parla (Madrid / SPAIN)  
Developer: AQUILA SDAD COOP. MADRILEÑA  
Building firm: UTE RUBAU-VELASCO  
Product: URSA AIR M2021 Aluminum Roll



### Gran Plaza Norte II Mall

Location: Las Rozas (Madrid / SPAIN)  
Developer: CHAPMAN TAYLOR, S.A.  
Building firm: ALDESA, SA  
Product: URSA AIR Zero + URSA AIR P5858 AI-AI Panel

# Conformity to the EN 13.403 standard

The mineral wool panels of **URSA AIR** are tested according to the **EN 14.403** standard (as it is mandatory in some countries regulations) and the reports are fully public. The results of the tests show that the ducts constructed using **URSA AIR** panels offer high added value.



- **Resistance to pressure:**

The resistance to pressure of the ducts constructed with **URSA AIR** mineral wool panels is measured as 2000 Pa. If a security coefficient of 2.5 is considered, it can be confirmed that the ducts constructed with **URSA AIR** panels can stand pressures up to 800 Pa. This limit of pressure is enough for low outlines equipments (80 Pa) as well as for acclimatizers of large size. This level of pressure can only be exceeded in case of the ATU's (air treatment units) with high potential fans.

- **Dragging of particles:**

With a high velocity air circulation (18.6 m/s) through the installation, the erosion and dragging of particles can be measured by segmenting them per size. The results of the particles obtained by **URSA AIR** panels are of a quantity which is completely negligible and quite lower than the results obtained by other products in the market. **They are even 100 times below the limits set by the norms.**

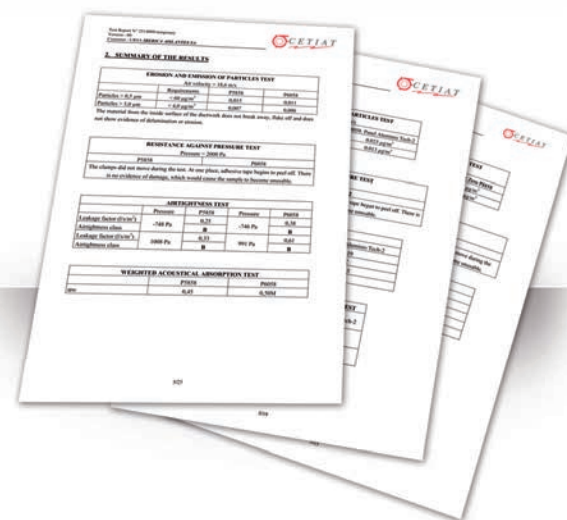
	URSA AIR Zero	URSA AIR AI-AI	URSA AIR AI-dB	URSA AIR AI-TECH2	Maximum limits set by EN 13.403
Particles > 0,5 µm	0,007 µg/m <sup>3</sup>	0,015 µg/m <sup>3</sup>	0,011 µg/m <sup>3</sup>	0,023 µg/m <sup>3</sup>	< 60 µg/m <sup>3</sup>
Particles > 5 µm	0,004 µg/m <sup>3</sup>	0,007 µg/m <sup>3</sup>	0,006 µg/m <sup>3</sup>	0,013 µg/m <sup>3</sup>	< 4 µg/m <sup>3</sup>

- **Airtightness:**

**URSA AIR** panels ducts systems can reach level C of airtightness, which represents the maximum possible in accordance with the normative of **EN 150**.

- **Acoustic absorption:**

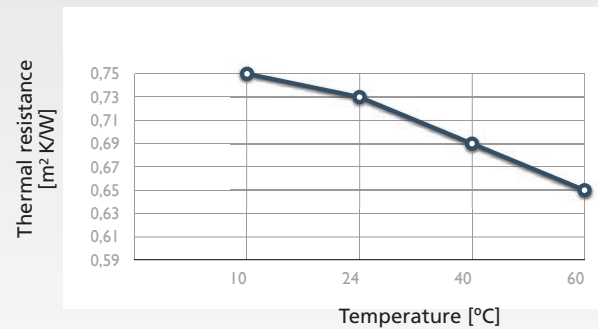
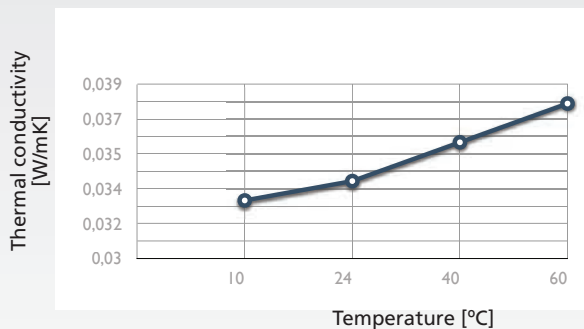
Acoustic absorption of **URSA AIR** mineral wool panels is excellent reaching B level in accordance with **UNE EN ISO 11654** (maximum level reached by similar mineral wool panels).



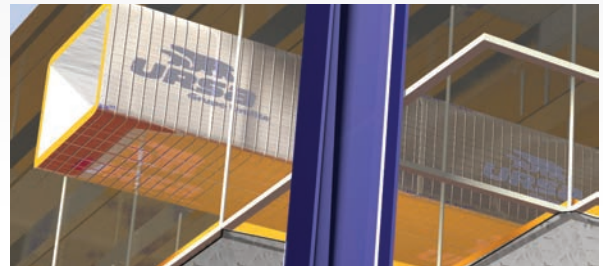
\* **URSA** publishes all the test reports of **URSA AIR** products. They can be downloaded from [www.ursa.es](http://www.ursa.es) or [www.ursa-air-seleccion.com](http://www.ursa-air-seleccion.com)

Thermal insulation of air-conditioning ducts is very important to reduce the energy losses and to improve the energy efficiency of the system. Regulations mandatory in different countries set minimum thermal insulation of duct walls for saving energy and not allowing condensation of water.

With a mindset to produce products that comply with the newest regulations, **URSA Iberica** has tested its mineral wool **URSA AIR** panels according to the **EN 14.303 standard**. That is why the thermal conductivity level of panels do not offer just one average value, but a curve of values for every temperature. **Remember, the less thermal conductivity (better thermal resistance) the better insulation.**



**URSA AIR** mineral wool panels allow the flow of both cold and hot air throughout the places.



Another novelty that the new **EN 14.303 standard** brings about is the necessity to test the reaction to fire of both sides of the products that are used for the insulation of air-conditioning ducts.

The reaction to fire classification of **URSA AIR** products is **B s1 d0** for the standard ones and **A2 s1 d0** for the incombustible range.

# URSA AIR Panels, construction of duct

## URSA AIR Mineral wool for construction of ducts.

- The best option for construction of ducts.
- Complete range of products with panels with acoustical absorption, incombustible panels and even a combination of both.
- All panels have a male-female shiplap edge system for junctions between ducts.
- All panels have the male shiplap edge covered by the inner facing.

	URSA AIR P5858 Al-Al panel	URSA AIR P6058 Al-dB panel	URSA AIR Zero	URSA AIR P8058 Al-TECH2 Panel	URSA AIR Zero A2
Dimensions (mm)	3.000x1.200x25 (2.400 x 1.200 x 25 XS format)				
Thermal insulation	EXCELLENT Thermal resistance 0,75 m <sup>2</sup> K/W. Curve depending on temperature available.				
Acoustical absorption*	Good type D	Very Good type C	Excellent type B	Good type D	Excellent type B
Reaction to fire (inner side)	Very good B s1 d0	Very good B s1 d0	Very good B s1 d0	Incombustible A2 s1 d0	Incombustible A2 s1 d0
Reaction to fire (outer side)	Very good B s1 d0	Very good B s1 d0	Very good B s1 d0	Incombustible A2 s1 d0	Incombustible A2 s1 d0
Inner facing	Aluminum Kraft covering	Microperforated reinforced aluminum facing	Zero black fabric	Reinforced pure aluminum facing	Zero black fabric
Outer facing	Reinforced Aluminum Kraft covering	Reinforced Aluminum Kraft covering	Reinforced Aluminum Kraft covering	A2 Aluminum fabric	A2 Aluminum fabric

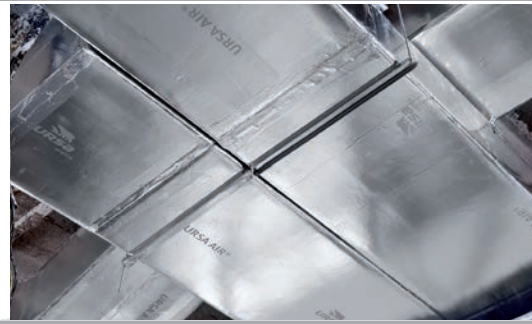
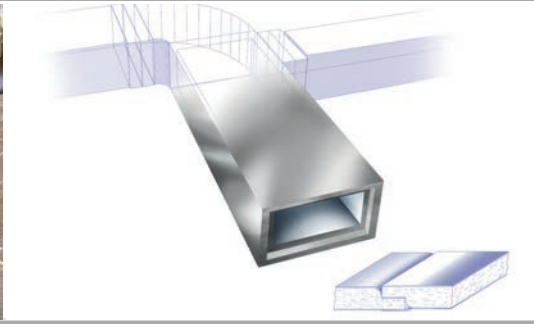
\*Acoustical absorption products classified according EN ISO 11.654 – "Acoustical absorption products used in buildings. Evaluation of acoustical absorption."

URSA offers its products in different formats adapted to different necessities of the market:

Format	Description	Products
Standard URSA AIR Panels	Carton boxes with 6 panels of 3x1,20 m	Whole range of URSA AIR Panels
URSA AIR XL Panel	Palet with 46 panels of 3x1,20 m. Plastic film for protection	✓ URSA AIR Al-Al ✓ URSA AIR Zero
URSA AIR XS Panel	Palet with 46 panels of 2,40x1,20 m. Special format for RENOVATION sites	✓ URSA AIR Al-Al ✓ URSA AIR Zero



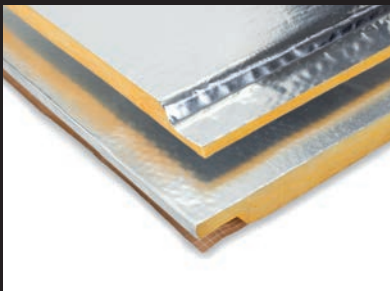
## URSA AIR Panels, Construction of ducts



### ■ URSA AIR XS PANEL

URSA AIR XS Panel format provides several advantages for the renovation works thanks to its shorter length:

- ✓ Can be transported inside vehicles. By this way, the necessary material can be transported in bulk for small renovations.
- ✓ Can be transported in elevators. There is no need to pre-cut panels or bear to carry them through the stairs.
- ✓ Can be transported through the corridors and narrow places. The distribution of dwellings or offices sometimes makes transportation of panels very difficult. This problem is solved with XS Panels.
- ✓ Can be handled and cut in small places. The size of cutting table is reduced and it can be placed in smaller spaces.



### URSA AIR Al-Al Panel

#### P5858

URSA AIR mineral wool panels for construction of air conditioning ducts, according EN 14.303 standard, faced by a reinforced aluminum kraft layer in their outer side and by an aluminum kraft layer in their inner side.



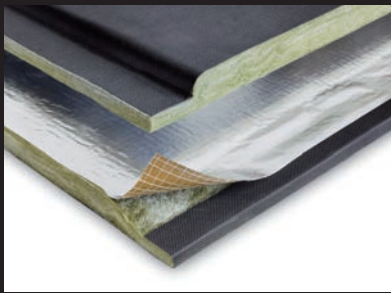
0099/CPD/A43/0294



020/003341

Dimensions and Characteristics		Standard	Unit	Box Format / XL Format	XS Format
Dimensions	(H) Thickness (d)	EN 823	mm	25	25
	Length (l)	EN 822	m	3,00	2,40
	Width (b)	EN 822	m	1,20	1,20
Fire Resistance	(F) Fire Resistance internal face	EN 13501-1	(---)	B s1 d0	B s1 d0
	Fire Resistance external face	EN 13501-1	(---)	B s1 d0	B s1 d0
Thermal Insulation	(T) Thermal Conductivity at 10° C	EN 12667 / EN 12939	W/m·K	0,033	0,033
	Thermal Conductivity at 24° C	EN 12667 / EN 12939	W/m·K	0,034	0,034
	Thermal Conductivity at 40° C	EN 12667 / EN 12939	W/m·K	0,036	0,036
	Thermal Conductivity at 60° C	EN 12667 / EN 12939	W/m·K	0,038	0,038
Tolerances	(H) Thickness Tolerances (Dd)	EN 823	% ; mm	-1; +3	-1; +3
	Squared (S <sub>b</sub> )	EN 824	mm/m	5	5
	Flatness (S <sub>max</sub> )	EN 825	mm	6	6
Stability	(D) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1	1
Strength Behavior	(M) Tensile Strength Parallel to Faces (s <sub>t</sub> )	EN 1608	kPa	(---)	(---)
	Compressive Strength (s <sub>m</sub> )	EN 826	kPa	5	5
	Compressibility (d <sub>t</sub> -d <sub>b</sub> )	EN 12431	mm	(---)	(---)
Vapor Behavior	(V) Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> ·h·Pa/mg	100	100
	Resistance to Water Vapor Diffusion (μ)	EN 12087	(---)	1	1
Acoustic Performance	(A) Dynamic Stiffness (s')	EN 29052	MN/m <sup>3</sup>	<10	<10
	Air Flow Resistance (r <sub>f</sub> )	EN 29053	kPa·s/m <sup>2</sup>	20	20
	Flow Resistance (R <sub>f</sub> )	EN 29013	kPa·s/m	0,5	0,5

# URSA AIR Panels, construction of duct



## URSA AIR Zero

P8858

URSA AIR mineral wool panels for construction of air conditioning ducts, according EN 14.303 standard, faced by a reinforced aluminum kraft layer in their outer side and by Zero fabric in their inner side.



0099/CPD/A43/0295

Acoustic  
Absorption  
 $\alpha_w = 0,80$

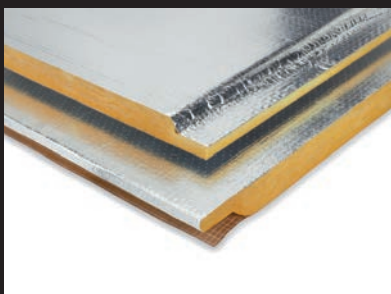


020/003342

Dimensions and Characteristics		Standard	Unit	Box Format / XL Format	XS Format
Dimensions	(H) Thickness (d)	EN 823	mm	25	25
	Length (l)	EN 822	m	3,00	2,40
	Width (b)	EN 822	m	1,20	1,20
Fire Resistance	(F) Fire Resistance internal face	EN 13501-1	(---)	B s1 d0	B s1 d0
	Fire Resistance external face	EN 13501-1	(---)	B s1 d0	B s1 d0
Thermal Insulation	(T) Thermal Conductivity at 10° C	EN 12667 / EN 12939	W/m-K	0,033	0,033
	Thermal Conductivity at 24° C	EN 12667 / EN 12939	W/m-K	0,034	0,034
	Thermal Conductivity at 40° C	EN 12667 / EN 12939	W/m-K	0,036	0,036
	Thermal Conductivity at 60° C	EN 12667 / EN 12939	W/m-K	0,038	0,038
Tolerances	(T) Thickness Tolerances (Dd)	EN 823	% ; mm	-1; +3	-1; +3
	Squared (S <sub>v</sub> )	EN 824	mm/m	5	5
	Flatness (S <sub>max</sub> )	EN 825	mm	6	6
Stability	(S) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1	1
Strength Behavior	(S) Tensile Strength Parallel to Faces (s <sub>t</sub> )	EN 1608	kPa	(---)	(---)
	Compressive Strength (s <sub>m</sub> )	EN 826	kPa	5	5
	Compressibility (d <sub>c</sub> -d <sub>p</sub> )	EN 12431	mm	(---)	(---)
Vapor Behavior	(V) Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> ·h·Pa/mg	100	100
	Resistance to Water Vapor Diffusion (μ)	EN 12087	(---)	1	1
Acoustic Performance	(A) Dynamic Stiffness (s')	EN 29052	MN/m <sup>3</sup>	<10	<10
	Air Flow Resistance (r <sub>g</sub> )	EN 29053	kPa·s/m <sup>2</sup>	20	20
	Flow Resistance (R <sub>g</sub> )	EN 29013	kPa·s/m	0,5	0,5

DESIGNATION CODE CE

T5



## URSA AIR Al-dB Panel

P6058

URSA AIR mineral wool panels for construction of air conditioning ducts, according EN 14.303 standard, faced by a reinforced aluminum kraft layer in their outer side and by a microperforated reinforced pure aluminum layer in their inner side.



0099/CPD/A43/0296

Acoustic  
Absorption  
 $\alpha_w = 0,65$



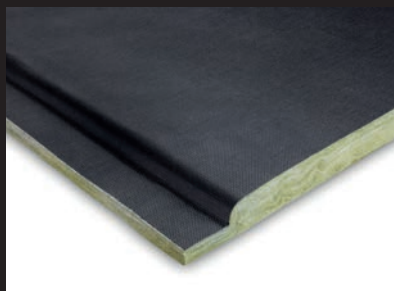
020/003342

Dimensions and Characteristics		Standard	Unit	Box Format / XL Format	XS Format
Dimensions	(H) Thickness (d)	EN 823	mm	25	25
	Length (l)	EN 822	m	3,00	2,40
	Width (b)	EN 822	m	1,20	1,20
Fire Resistance	(F) Fire Resistance internal face	EN 13501-1	(---)	B s1 d0	B s1 d0
	Fire Resistance external face	EN 13501-1	(---)	B s1 d0	B s1 d0
Thermal Insulation	(T) Thermal Conductivity at 10° C	EN 12667 / EN 12939	W/m-K	0,033	0,033
	Thermal Conductivity at 24° C	EN 12667 / EN 12939	W/m-K	0,034	0,034
	Thermal Conductivity at 40° C	EN 12667 / EN 12939	W/m-K	0,036	0,036
	Thermal Conductivity at 60° C	EN 12667 / EN 12939	W/m-K	0,038	0,038
Tolerances	(T) Thickness Tolerances (Dd)	EN 823	% ; mm	-1; +3	-1; +3
	Squared (S <sub>v</sub> )	EN 824	mm/m	5	5
	Flatness (S <sub>max</sub> )	EN 825	mm	6	6
Stability	(S) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1	1
Strength Behavior	(S) Tensile Strength Parallel to Faces (s <sub>t</sub> )	EN 1608	kPa	(---)	(---)
	Compressive Strength (s <sub>m</sub> )	EN 826	kPa	5	5
	Compressibility (d <sub>c</sub> -d <sub>p</sub> )	EN 12431	mm	(---)	(---)
Vapor Behavior	(V) Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> ·h·Pa/mg	100	100
	Resistance to Water Vapor Diffusion (μ)	EN 12087	(---)	1	1
Acoustic Performance	(A) Dynamic Stiffness (s')	EN 29052	MN/m <sup>3</sup>	<10	<10
	Air Flow Resistance (r <sub>g</sub> )	EN 29053	kPa·s/m <sup>2</sup>	20	20
	Flow Resistance (R <sub>g</sub> )	EN 29013	kPa·s/m	0,5	0,5

DESIGNATION CODE CE

T5

# URSA AIR Panels, Construction of ducts



## URSA AIR Zero A2

**URSA AIR** mineral wool panels for construction of air conditioning ducts, faced by an aluminum A2 fabric in their outer side and by acoustic **Zero fabric** in their inner side.



0099/CPD/A43/0282

Acoustic Absorption  
 $\alpha_w = 0,80$

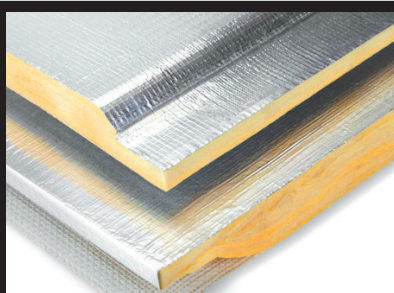


020/003332

Dimensions and Characteristics		Standard	Unit	
Dimensions	(  ) Thickness (d)	EN 823	mm	25
	Length (l)	EN 822	m	3,00
	Width (b)	EN 822	m	1,20
Fire Resistance	(🔥) Fire Resistance	EN 13501-1	(---)	A2 s1 d0
Thermal Insulation	(*) Thermal Conductivity (I90/90)	EN 12667 / EN 12939	W/m-K	0,033
	Thermal Resistance (R <sub>p</sub> )	EN 12667 / EN 12939	m <sup>2</sup> -K/W	0,75
Tolerances	(  ) Thickness Tolerances (Dd)	EN 823	% ; mm	-1; +3
	Squared (S <sub>b</sub> )	EN 824	mm/m	5
	Flatness (S <sub>max</sub> )	EN 825	mm	6
Stability	(↓↑) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1
Strength Behavior	(*) Tensile Strength Parallel to Faces (s <sub>t</sub> )	EN 1608	kPa	(---)
	Compressive Strength (s <sub>m</sub> )	EN 826	kPa	5
	Compressibility (d <sub>t</sub> -d <sub>b</sub> )	EN 12431	mm	(---)
Vapor Behavior	(::) Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> -h-Pa/mg	100
	Resistance to Water Vapor Diffusion (μ)	EN 12087	(---)	1
Acoustic Performance	(∩) Dynamic Stiffness (s')	EN 29052	MN/m <sup>3</sup>	<10
	Air Flow Resistance (r <sub>f</sub> )	EN 29053	kPa-s/m <sup>2</sup>	20
	Flow Resistance (R <sub>f</sub> )	EN 29013	kPa-s/m	0,5

DESIGNATION CODE CE

T5 - CS(10)5 - Z100 - SD10



## Panel ALUMINIO Tech-2 P8058

**URSA AIR** mineral wool panels for construction of air conditioning ducts, faced by an aluminum A2 fabric in their outer side and by a reinforced pure aluminum layer in their inner side.



0099/CPD/A43/0205



020/002746

Dimensions and Characteristics		Standard	Unit	
Dimensions	(  ) Thickness (d)	EN 823	mm	25
	Length (l)	EN 822	m	3,00
	Width (b)	EN 822	m	1,20
Fire Resistance	(🔥) Fire Resistance	EN 13501-1	(---)	A2 s1 d0
Thermal Insulation	(*) Thermal Conductivity (I90/90)	EN 12667 / EN 12939	W/m-K	0,033
	Thermal Resistance (R <sub>p</sub> )	EN 12667 / EN 12939	m <sup>2</sup> -K/W	0,75
Tolerances	(  ) Thickness Tolerances (Dd)	EN 823	% ; mm	-1; +3
	Squared (S <sub>b</sub> )	EN 824	mm/m	5
	Flatness (S <sub>max</sub> )	EN 825	mm	6
Stability	(↓↑) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1
Strength Behavior	(*) Tensile Strength Parallel to Faces (s <sub>t</sub> )	EN 1608	kPa	(---)
	Compressive Strength (s <sub>m</sub> )	EN 826	kPa	5
	Compressibility (d <sub>t</sub> -d <sub>b</sub> )	EN 12431	mm	(---)
Vapor Behavior	(::) Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> -h-Pa/mg	100
	Resistance to Water Vapor Diffusion (μ)	EN 12087	(---)	1
Acoustic Performance	(∩) Dynamic Stiffness (s')	EN 29052	MN/m <sup>3</sup>	<10
	Air Flow Resistance (r <sub>f</sub> )	EN 29053	kPa-s/m <sup>2</sup>	20
	Flow Resistance (R <sub>f</sub> )	EN 29013	kPa-s/m	0,5

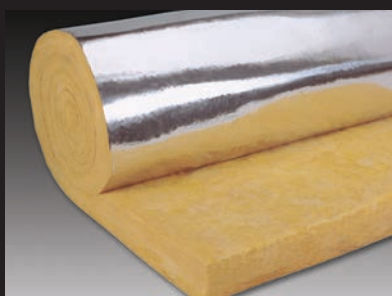
DESIGNATION CODE CE

T5-CS(10)5-Z100-SD10

# URSA AIR Rolls, metallic ducts insulation

URSA AIR Roll provide thermal insulation to metallic ducts, that can have different shapes like rectangular, circular or elliptical. These systems are normally used when high thermal insulation values are required (until 2,35 m<sup>2</sup>K/W of thermal resistance) or when it is necessary to distribute air at a very high pressure.

	URSA AIR M2021 Aluminum Roll	URSA AIR M5102L Reinforced Aluminum Roll	URSA AIR M3603 Incombustible pure Aluminum Roll
Length (mm)	15.000 / 7.500	18.000 / 15.000 / 15.000	16.000 / 8.000
Width (mm)	1.200	1.150	1.200
Thickness (mm)	55/100	30/40/50	25/50
Thermal Insulation	EXCELLENT Complete Brand of Thermal Resistance until 2,35 m <sup>2</sup> K/W.		
Fire Reaction	Very good B s1 d0	Very good B s1 d0	Incombustible A2 s1 d0
Facing	Kraft ALUMINUM	Kraft Reinforced ALUMINUM + Reed	Pure Aluminum
Consistency	Good	Very Good	Excellent



## URSA AIR Aluminum Roll M2021

URSA AIR Mineral Wool Roll with Aluminum Kraft facing as vapor barrier.



0099/CPD/A43/0202



020/002737

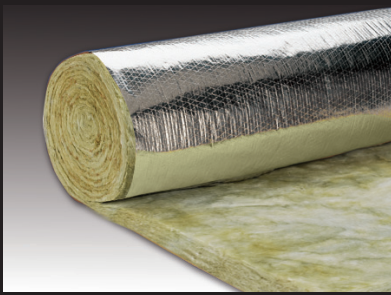
Dimensions and Characteristics		Standard	Unit		
Dimensions	(  ) Thickness (d)	EN 823	mm	55	100
	Length (l)	EN 822	m	15,00	7,50
	Width (b)	EN 822	m	1,20	1,20
Fire Resistance	(🔥) Fire Resistance interior face	EN 13501-1	(---)	B s1 d0	B s1 d0
Thermal Insulation	(☼)(☼) Lambda (λ <sub>90/90</sub> )	EN 12667 / EN 12939	W/m·K	0,042	0,042
	Thermal Resistance (R <sub>p</sub> )	EN 12667 / EN 12939	m <sup>2</sup> ·K/W	1,30	2,35
Tolerances	(  ) Thickness Tolerances (Dd)	EN 823	% ; mm	-5	-5
	Squared (S <sub>b</sub> )	EN 824	mm/m	(---)	(---)
	Flatness (S <sub>max</sub> )	EN 825	mm	6	6
Stability	(⚖️)(⚖️) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1	1
Strength Behavior	(⚙️) Tensile Strength Parallel to Faces (s <sub>t</sub> )	EN 1608	kPa	>3,6	>3,6
	Compressive Strength (s <sub>m</sub> )	EN 826	kPa	(---)	(---)
	Compressibility (d <sub>c</sub> -d <sub>b</sub> )	EN 12431	mm	(---)	(---)
Vapor Behavior	(:::) Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> ·h·Pa/mg	100	100
	Resistance to Water Vapor Diffusion (μ)	EN 12087	(---)	1	1
Acoustic Performance	(🔊) Dynamic Stiffness (s')	EN 29052	MN/m <sup>3</sup>	(---)	(---)
	Air Flow Resistance (r <sub>f</sub> )	EN 29053	kPa·s/m <sup>2</sup>	2	2
	Flow Resistance (R <sub>f</sub> )	EN 29013	kPa·s/m	0,11	0,20

DESIGNATION CODE CE

T1-Z100



# URSA AIR Rolls, metallic ducts insulation



## URSA AIR Aluminum reinforced Roll M5102L

**URSA AIR** Mineral Wool faced by areinforced aluminum kraft layer as vapor barrier, with a wedge.



0099/CPD/A43/0189

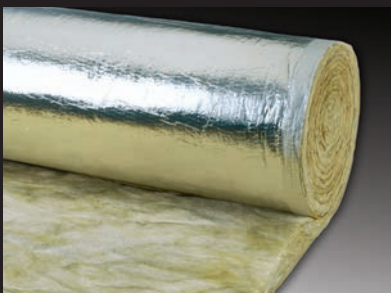


020/002743

Dimensions and Characteristics		Standard	Unit				
Dimensions	(  )	Thickness (d)	EN 823	mm	30	40	50
		Length (l)	EN 822	m	18,00	15,00	15,00
		Width (b)	EN 822	m	1,15	1,15	1,15
Fire Resistance	(🔥)	Fire Resistance interior face	EN 13501-1	(---)	B s1 d0	B s1 d0	B s1 d0
Thermal Insulation	(*)	Lambda ( $\lambda_{90/90}$ )	EN 12667 / EN 12939	W/m·K	0,036	0,036	0,036
		Thermal Resistance ( $R_p$ )	EN 12667 / EN 12939	m <sup>2</sup> ·K/W	0,80	1,10	1,35
Tolerances	(  )	Thickness Tolerances (Dd)	EN 823	% ; mm	-1;+3	-1;+3	-1;+3
		Squared ( $S_b$ )	EN 824	mm/m	5	5	5
		Flatness ( $S_{max}$ )	EN 825	mm	6	6	6
Stability	(↓)(↑)	Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1	1	1
Strength Behavior	(*)	Tensile Strength Parallel to Faces ( $s_t$ )	EN 1608	kPa	(---)	(---)	(---)
		Compressive Strength ( $s_m$ )	EN 826	kPa	5	5	5
		Compressibility ( $d_t-d_b$ )	EN 12431	mm	(---)	(---)	(---)
Vapor Behavior	(⋮)	Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> ·h·Pa/mg	100	100	100
		Resistance to Water Vapor Diffusion ( $\mu$ )	EN 12087	(---)	1	1	1
Acoustic Performance	(Ⓜ)	Dynamic Stiffness ( $s'$ )	EN 29052	MN/m <sup>3</sup>	(---)	(---)	(---)
		Air Flow Resistance ( $r_f$ )	EN 29053	kPa·s/m <sup>2</sup>	3	3	3
		Flow Resistance ( $R_f$ )	EN 29013	kPa·s/m	0,90	0,90	0,90

DESIGNATION CODE CE

T3-Z100



## URSA AIR Pure incombustible aluminum M3603

**URSA AIR** Mineral wool Roll, faced with an incombustible reinforced aluminum layer as vapor barrier.



0099/CPD/A43/0188

Dimensions and Characteristics		Standard	Unit			
Dimensions	(  )	Thickness (d)	EN 823	mm	25	50
		Length (l)	EN 822	m	16,00	8,00
		Width (b)	EN 822	m	1,20	1,20
Fire Resistance	(🔥)	Fire Resistance interior face	EN 13501-1	(---)	A2 s1 d0	A2 s1 d0
Thermal Insulation	(*)	Lambda ( $\lambda_{90/90}$ )	EN 12667 / EN 12939	W/m·K	0,036	0,036
		Thermal Resistance ( $R_p$ )	EN 12667 / EN 12939	m <sup>2</sup> ·K/W	0,65	1,35
Tolerances	(  )	Thickness Tolerances (Dd)	EN 823	% ; mm	-3;+10	-3;+10
		Squared ( $S_b$ )	EN 824	mm/m	(---)	(---)
		Flatness ( $S_{max}$ )	EN 825	mm	6	6
Stability	(↓)(↑)	Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1	1
Strength Behavior	(*)	Tensile Strength Parallel to Faces ( $s_t$ )	EN 1608	kPa	>4,5	>4,5
		Compressive Strength ( $s_m$ )	EN 826	kPa	(---)	(---)
		Compressibility ( $d_t-d_b$ )	EN 12431	mm	(---)	(---)
Vapor Behavior	(⋮)	Water Vapor Resistance (Z)	EN 12087	m <sup>2</sup> ·h·Pa/mg	38	38
		Resistance to Water Vapor Diffusion ( $\mu$ )	EN 12087	(---)	1	1
Acoustic Performance	(Ⓜ)	Dynamic Stiffness ( $s'$ )	EN 29052	MN/m <sup>3</sup>	(---)	(---)
		Air Flow Resistance ( $r_f$ )	EN 29053	kPa·s/m <sup>2</sup>	5	5
		Flow Resistance ( $R_f$ )	EN 29013	kPa·s/m	0,15	0,25

DESIGNATION CODE CE

T3-Z38

# URSA AIR Zero In, inner insulation of metallic ducts

*URSA AIR Zero In is the solution that URSA offers for insulation of metallic ducts by inside. This solution provides the opportunity to assemble ducts that conserves the esthetic appearance while forming a part of the decoration of the place and while also reducing the propagation of sound through ducts.*

- √ **URSA AIR Zero In** has a special black acoustic fabric that gives him its excellent acoustic absorption properties. This solution allows to reduce noise propagation through metallic duct unlike the solutions where the insulation is placed outside ducts.
- √ Its **A2 s1 d0** Fire reaction class, totally incombustible, contributes to the non propagation of fire through the ducts.
- √ **URSA AIR ZERO In Roll** can be stuck to inner side of metallic ducts with specific metal anchors or with contact adhesives.



## URSA AIR Zero In

**URSA AIR** Mineral wool Roll, faced with a black acoustic fabric. Used for applications of internal insulation of metallic air conditioning ducts.



0099/CPD/A43/0299










020/003347

Dimensions and Characteristics		Standard	Unit	
Dimensions	(  ) Thickness (d)	EN 823	mm	25
	Length (l)	EN 822	m	18,00
	Width (b)	EN 822	m	1,20
Fire Resistance	(🔥) Fire Resistance interior face	EN 13501-1	(---)	A2 s1 d0
Thermal Insulation	(*) (⊗) Lambda ( $\lambda_{90/90}$ )	EN 12667 / EN 12939	W/m·K	0,032
	Thermal Resistance ( $R_p$ )	EN 12667 / EN 12939	m <sup>2</sup> ·K/W	0,75
Tolerances	(  ) Thickness Tolerances (Dd)	EN 823	% ; mm	-3/+3
	Squared ( $S_b$ )	EN 824	mm/m	5
	Flatness ( $S_{max}$ )	EN 825	mm	6
Stability	(⬇) (⬆) Dimensional stability (23 °C y 90%) (De)	EN 1604	%	1
Strength Behavior	(*) Tensile Strength Parallel to Faces ( $s_t$ )	EN 1608	kPa	(---)
	Compressive Strength ( $s_m$ )	EN 826	kPa	(---)
	Compressibility ( $d_t-d_b$ )	EN 12431	mm	(---)
Vapor Behavior	(:::) Water Vapor Resistance (Z)	EN 12087	(---)	(---)
	Resistance to Water Vapor Diffusion ( $\mu$ )	EN 12087	(---)	MU1
Acoustical Performance	(Ⓜ) Dynamic Stiffness ( $s'$ )	EN 29052	MN/m <sup>3</sup>	(---)
	Air Flow Resistance ( $r_f$ )	EN 354/A1	(---)	(---)
	Flow Resistance ( $R_f$ )	EN 29053	kPa·s/m <sup>2</sup>	5
	Flow Resistance ( $R_f$ )	EN 29013	kPa·s/m	(---)

## URSA AIR Tools – for construction of air-conditioning ducts

The URSA AIR tools enable cutting and constructing ducts from URSA AIR mineral wool panels:

	<p><b>Briefcase for the cutting tools EASY TOOL</b></p> <p>A complete set of tools to cut and construct ducts from the <b>URSA AIR mineral wool</b> panels. It contains:</p> <ul style="list-style-type: none"> <li>• Red hand tool to realize 90° V-grooves for construction of straight ducts. <b>EASY CUT blades</b> for soft and precise cutting.</li> <li>• Blue hand tool to realize the longitudinal side closings of the straight ducts or the lateral junction of walls of the figures. <b>EASY CUT blades</b> for soft and precise cutting.</li> <li>• Black hand tool to realize the male or female shiplap edge used in connections between figures. <b>EASY CUT blades</b> for soft and precise cutting.</li> </ul>
	<p><b>Spare kit for EASY TOOL blades</b></p> <p>Set of spare <b>EASY TOOL blades</b> for a soft and precise cutting for the <b>URSA AIR</b> hand tools. The kit is composed by 5 pairs of blades per yellow box for red hand tool, a set of spare kit for blue hand tool and a set of blades for black hand tool</p>
	<p><b>URSA AIR Aluminum square</b></p> <p>Foldable aluminum square with an improved resistance. Allows to square the 90° angles and obtain other angles like 22,5° to realize figures from straight ducts.</p>
	<p><b>Triangle SCR</b></p> <p>Triangular shaped set square from steel that allows to realize figures from straight ducts thanks to its form of 22,5° and 45° of shapes in both sides.</p>
	<p><b>URSA AIR knife</b></p> <p>Knife for perfect cuts to handle <b>URSA AIR mineral wool</b> panels.</p>
	<p><b>Retractable tape measure URSA AIR</b></p> <p>Retractable tape measure that enables the measurements of outlines on the <b>URSA AIR mineral wool</b> panels.</p>
	<p><b>Spatula URSA AIR</b></p> <p>White plastic spatula for adhesion and sealing of the pure aluminum tape over the exterior facing of <b>URSA AIR mineral wool</b> panels.</p>

## Welcome to URSA AIR Selección

If you are an installer of **URSA AIR** mineral wool air-conditioning duct panels and still you are not a member of **Club URSA AIR Selección**, Don't wait more!

Thanks to **URSA AIR Club**, you can participate in technical consulting forums, download programs that will help you, consult articles of interest and participate the lotteries and promotions.

Subscribe through the web page [www.ursa-air-seleccion.com](http://www.ursa-air-seleccion.com)! And if you are a member already, don't forget to check the web page of the club for promotions and special offers.

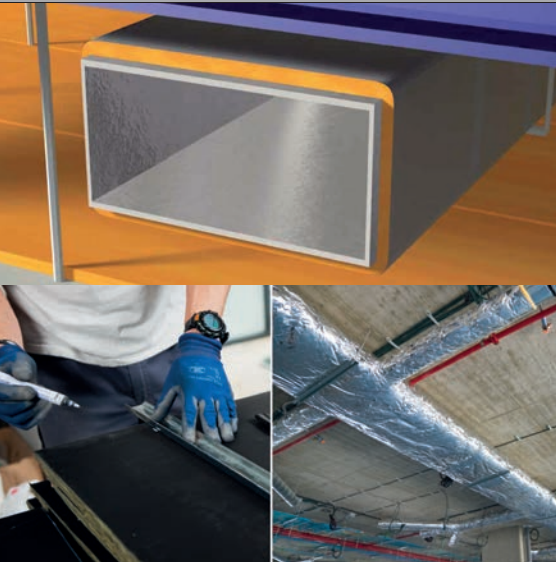
## URSA AIR Selección

### Advantages of the members of URSA AIR Selección

- The club is a fast and direct way of communicating with **URSA**.
- It's a medium for communicating with the rest of the professionals of duct installation.
- You can keep yourself informed about and participate to the courses and events organized by **URSA**.
- You can get **URSA AIR** products with special discounts and promotions.



Insulation for a better tomorrow



[www.ursa.es](http://www.ursa.es)

[www.ursa-air-seleccion.com](http://www.ursa-air-seleccion.com)

[sutac.aislantes@uralita.com](mailto:sutac.aislantes@uralita.com)