

## ALP SYSTEM

Aluminium Pre-insulated ducts, self-supporting, for Heating, Ventilation and Air Conditioning distribution systems.

### Advantages

- ❖ Long duration granted by the characteristics of the aluminium foil (absolutely no rust or other type of deteriorations)
- ❖ No fibers release or dispersion
- ❖ Very high thermal insulation
- ❖ Outdoor installation without any additional protection
- ❖ Excellent air tightness
- ❖ Resistant to high pressure of the air (positive and negative)
- ❖ Resistant to salty atmosphere
- ❖ Easy access for maintenance
- ❖ Easy cleaning (water washing, brushing or disinfection)

### Fabrication

ALP SYSTEM air ducts are fabricated using rigid polyurethane foam boards, faced on both side by an aluminium foil.

- Panel thickness : 21 mm, 30 mm and 50 mm
- Rigid polyurethane foam, closed cells, density 48 kg/m<sup>3</sup>, without CFC-HCFC-HFC
- Internal facing :  
Aluminium foil, 80 or 500 micron thickness, treated with 3 g/m<sup>2</sup> of transparent varnish,
- External facing :  
Aluminium foil, 80, 200 or 500 micron thickness, treated with 3 g/m<sup>2</sup> of transparent varnish as protection against weather agents and UV rays,

### Application

Realisation of HVAC air distribution systems (Supply, Return, Exhaust, Fresh air) to be installed Indoor and Outdoor, especially in the following projects:

- Hospitals and Operating Suites,
- Clean Rooms and Pharmaceutical Industry,
- Food Industry,
- Swimming Pools.

### Range

| Ref.       | Typical Application | Panel Thickness | Aluminium Foil Thickness |        |
|------------|---------------------|-----------------|--------------------------|--------|
|            |                     |                 | EXT                      | INT    |
| ALP100RF   | Indoor              | 21 mm           | 80 µm                    | 80 µm  |
| ALP200RF   | Machine Rooms       | 21 mm           | 200 µm                   | 80 µm  |
| ALP230RF   | Outdoor             | 30 mm           | 200 µm                   | 80 µm  |
| ALP500/500 | Heavy Duty          | 50 mm           | 0,5 mm                   | 0,5 mm |



### Specifications of Use

| Temperature (°C) | Air Velocity (m/sec) | Pressure (Pascal) |
|------------------|----------------------|-------------------|
| +110 / -35       | 30                   | 2000*             |

(\*) Higher Pressures are possible – Please contact ALP.

### Fire Safety

- Class 0 - British Standard 476, Part 6 & 7

### Technical Characteristics

- Panels Stiffness : **R 5** ( $EI_u > 350.000 \text{ N}\cdot\text{mm}$ )
- Thermal Conductivity :  
(new panel)  $\lambda$  0,0213 W/(m·K)  
(aged panel)  $\lambda$  0,0226 W/(m·K)
- Thermal Resistance: **R** m<sup>2</sup>·K/W

|  | 21 mm | 30 mm | 50 mm |
|--|-------|-------|-------|
|  | 0,986 | 1,408 | 2,347 |

- Water Vapour Transmission :  
**Z**  $\geq 2000 \text{ (m}^2\cdot\text{h}\cdot\text{Pa)/mg}$
- Nominal Pressure\* : Positive: 2.000 Pascal  
Negative: -2.000 Pascal

(\*) Higher Pressures are possible – Please contact ALP.

### Duct Sealing Class

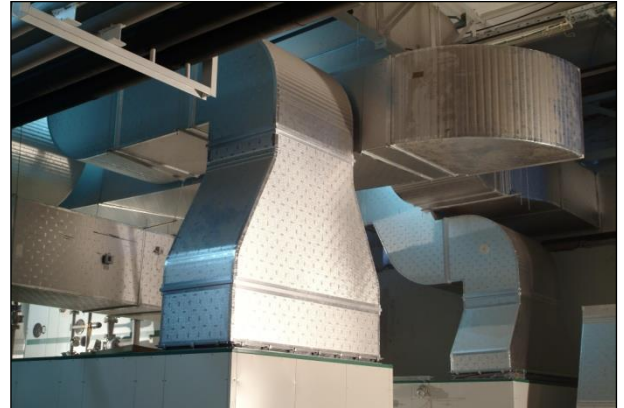
| Pressure (Pascal) | Class |
|-------------------|-------|
| - 750             | C     |
| 400               | C     |
| 1000              | B     |
| 2000              | B     |

Performances reached with a "standard" fabrication.  
Better Sealing Class can be reached – Please contact ALP.

**Outdoor**



**Machine Rooms**



**Indoor**



**Coloured**

