

DUAL-TECH[®]

SMACNA COMPLIANT PHENOLIC EXTERIOR DUCTWORK

All-in-one, pre-insulated air distribution system suitable for outdoor and indoor applications



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Dual-Tech® Features and Benefits

- ◆ Carries a 20 year limited warranty
- ◆ Resolves issues that exist with many traditional insulated sheet metal systems—such as weight, space, install time, and energy performance
- ◆ Ideal for jobs where a non-fibrous solution is desired. The air stream in the sealed duct flows only on aluminum, making it ideally suited for high specification applications
- ◆ Dual-Tech®'s patented system combined with the fully sealed duct seams produce a system that is virtually airtight
- ◆ Yields significant savings in reduced heating and cooling loads due to the superior insulating properties of the phenolic panel and minimal air leakage of the jointing system
- ◆ Offers significant installed cost savings over other insulated sheet metal systems
- ◆ Fully assembled and factory sealed
- ◆ Single trade installation
- ◆ Improves installation speed (2x that of sheet metal and insulation)
- ◆ Superior strength (double-layer construction)
- ◆ R-16 Thermal rating (greater values available)
- ◆ Low air leakage: Less than 1%
- ◆ Inner layer fabricated to UL-181 Listed Class 1 Ducting
- ◆ Whole life cost savings up to 30% over 30 years
- ◆ Eliminates fibers from the air stream
- ◆ Reduces weight loads (1/3 the weight of sheet metal & insulation), less than 2lbs. / sq. ft.
- ◆ Reduction in CO₂ emission (1.79 lb./sq. ft. of bldg. floor area)
- ◆ Ductwork fabricated from SMACNA compliant KoolDuct® system can contribute points towards achieving credits, including pilot credits, in many of the LEED rating systems, developed by the USBGC

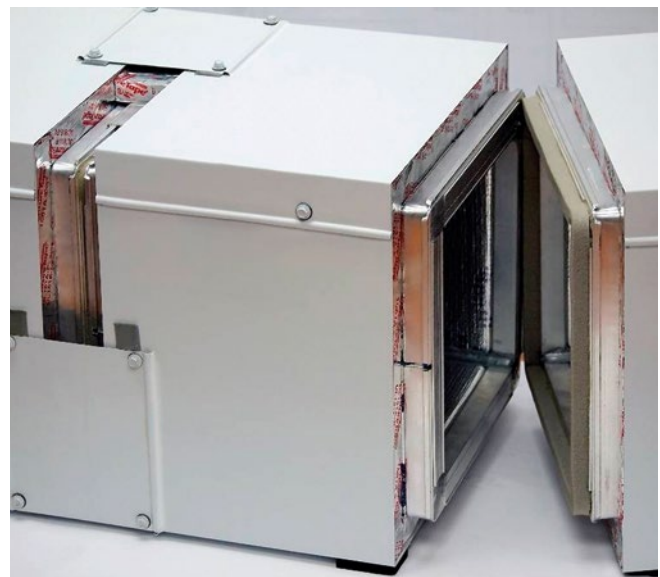
Description

Dual-Tech® is the PTM PATENTED pre-insulated ducting system that combines the features and benefits of the SMACNA compliant Kingspan KoolDuct® with Techna-Duc® in an all-in-one air distribution system.

Dual-Tech® is the pre-fabricated, double-layer ducting system that is suitable for indoor and outdoor applications. Its .032 aluminum jacketing is the exterior armor to the SMACNA compliant Kingspan KoolDuct® that is UL 181 Listed as a Class 1 Air Duct System. It is CFC/HCFC-free, using a blowing agent that has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP), which makes it Environmentally Friendly.

The Dual-Tech® System Eliminates the need to install insulation as a second operation; this faster, single trade install reduces time onsite and improves overall construction schedules. If you want to save time, reduce construction timelines, and save money – then Dual-Tech® is for you.

Dual-Tech® greatly reduces HVAC system run time by providing an airtight system with <1% air leakage with a standard R-16 insulation rating. This reduces utility costs greatly and virtually eliminates maintenance costs over the life of the product. In addition to all these benefits, we confidently back Dual-Tech® by PTM's 20 year limited warranty!



Dual-Tech® is a pre-insulated ducting system that combines the SMACNA compliant KoolDuct® with Techna-Duc® to create an all-in-one air distribution system.



Fast, one trade installation.



Durable double-layer construction with R-16 thermal rating.



Vertical runs are easy.

Recommended Uses

Dual-Tech® is primarily designed for exterior HVAC ducting application on new construction and existing HVAC upgrades. It delivers a maximum Static Pressure of positive 6 in. w.g./1500Pa and a negative 6 in. w.g./1500Pa. that will easily achieve SMACNA air leakage Class 3.

Dual-Tech® is suitable for interior applications as well. It is ideal for exposed ducting in mechanical equipment rooms, gymnasiums or anywhere a protection jacketed duct is needed.

Dual-Tech® is the perfect choice for all HVAC supply, return, fresh air, and outside air ducting needs, providing long-term energy efficiencies that will improve the IAQ of the building.

General Properties

Mean Air Velocity (Max.)	5000 fpm / 25.4 m/s
Design Pressure (higher pressure gauges also available)	Positive: 6 in. w.g. / 1500 Pa Negative: 6 in. w.g. / 1500 Pa
Nominal Density Range of Insulation	3.43-3.75 pcf / 55-60 kg/m ³
Closed Cell Content	>90%
Specific Heat Capacity of Insulation	0.45 Btu/lb · °F / 1.88 kJ/kg · °C
Minimum Compressive Strength at 10% Compression (BS EN 826: 1996)	29 psi / 200kPa
Thermal Conductivity (k-value) at 50-74°F Mean (ASTM C 518)	0.146 Btu · in/ft ² · hr · °F
Thermal Resistance (Material R-Value: Installed & Out of Package) (ASTM C 518)	(2) 1-3/16" layers 16.2 ft ² · hr · °F/Btu
Internal Air Temperature	-15°F to +185°F

Fire & Smoke Performance: The panels successfully pass the Burning Test (UL 181) and do not exceed flame spread / smoke developed indices 25/50 (ASTM E 84 / UL 723).



The best choice for schools and hospitals.



Attractive white and embossed aluminum finishes.



Transitions are no problem.



Wall penetrations are easy to install.

New construction or retrofit, BIG can maximize your building's HVAC efficiency
...contact us to find out how.



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