

# Dual-Tech

## Dual-Tech Submittal Sheet

## Northeastern Sheet Metal

### Description

**Dual-Tech** is a pre-fabricated double-layer ducting system with an .032" embossed aluminum jacketing (also available in colored finishes) that uses Kingspan KoolDuct panels that are UL listed as a Class 1 Air Duct System meeting the standard UL 181. CFC/HCFC-free, using a blowing agent that has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP). Available in an R-14 or R-16 insulation rating. **Dual-Tech has a single install application; eliminating the need to install insulation as a second operation, thus reducing time onsite and improving overall construction schedules through faster installation speeds.** **Dual-Tech** improves energy efficiency and is backed by a **10 year** limited warranty.

### Recommended Uses

**Dual-Tech** is primarily designed for exterior HVAC ducting applications on new construction and existing HVAC upgrades. **Dual-Tech** is also suitable for interior applications in lieu of a jacketed insulation system (e.g. exposed ducting in mechanical equipment rooms, gymnasiums, etc.). **Dual-Tech** is the perfect choice for all HVAC Supply, Return, Exhaust, Fresh Air, and Outside Air ducting needs, providing long term energy efficiencies that will also improve the IAQ of the building.

### Features and Benefits

- Single trade installation
- Improves installation speed (2x that of sheet metal and insulation)
- Superior strength (double-layer construction)
- R-14 or R-16 thermal rating
- Low air leakage: Less than 1%
- Fabricated using UL-181 Listed Class 1 Ducting
- Whole life cost savings up to 30% over 30 years
- Eliminates fiber glass from the air transference
- Reduces weight loads (1/3 the weight of sheet metal & insulation)
- Reduction in CO2 emissions (1.79 lb/sq. ft. of bldg floor area)
- Ductwork fabricated from the Kingspan KoolDuct system can contribute points towards achieving credits, including pilot credits, in many of the LEED (Leadership in Energy & Environmental Design) rating systems, developed by the USBGC (United States Green Building Council)
- 10 Year Limited Warranty



### General Properties

Mean Air Velocity (Max.)	5000 fpm/ 25.4 m/s
Design Pressure (Max.)	Positive: 6 in. w.g. / 1000 Pa Negative: 6 in w.g. / 1000 Pa
Nominal Density Range of Insulation	3.43-3.75 pcf/55-60 kg/m <sup>3</sup>
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 <sup>2</sup> -hr.°F
Thermal Resistance (Material R-Value: Installed & Out of Package)(ASTM C 518)	7/8": 6.0 ft <sup>2</sup> -hr.°F/Btu 1 3/16": 8.1 ft <sup>2</sup> -hr.°F/Btu
Operating Temperature Limits	-4 °F to +167°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).

# NESM

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