

# Fire rated enclosure products

Product overview

## Commercial kitchen exhaust ducts | Air ventilation ducts

### Fire rated enclosure offering

Thermal Ceramics, a global manufacturer of high temperature insulation products, has provided engineered solutions for heat containment problems for over 75 years, and was the first to develop flexible fire resistive duct enclosures, marketed under the brandname of FireMaster, for commercial kitchen grease and air ventilation ducts.

Unlike imitation wraps in today's market, Thermal Ceramics has the widest range of performance testing which goes beyond minimum laboratory listings or code requirements. This assures fire containment, from the typical to the most complex duct designs, without theorizing.

- High temperature 2192°F (1200°C) fire rated solutions
- Do not age, become brittle, or shrink during in-service
- UL Environment verification of mold resistance and low/no VOCs
- Fully encapsulated in reinforced aluminum facings for easy handling and installation
- Less than 25/50 Smoke and Flame Rating (ASTM E84)
- Patented low bio-persistent fibers for safer handling

With nearly 25 years real world and laboratory fire exposures, the FireMaster line can be trusted to hold the line in a fire.



### FastWrap XL

- Flexible, 1-1/2" (38mm) thick
- 2hr and zero clearance protection of grease ducts per ASTM E2336 using two layer butt-joint installation method
- 2hr protection of HVAC ducts per ISO 6944 using single layer installation
- UL and ULC Listed and ICC-ES Approved
- Meets code requirements of NFPA 96, IMC, UMC, CMC, NBCC

### FastDoor XL

- UL Listed, fire tight per UL1978
- Liquid tight gasket
- Straight on/off attachment limits interference with wrap
- Includes single layer insulation cover
- Fast installation on new or retrofit ducts

### DryerWrap

- Flexible, 1/2" (13mm) thick
- UL & ULC listed for 1hr protection inside rated wood frame construction
- Approved on 4" dia., 30 gage vent pipe
- For use on dryer vents in multifamily housing projects

### PlenumWrap+

- Flexible, 1/2" (13mm) thick
- Single layer tested to NFPA 262 (UL 910) and UL 1887
- Intertek (OPL) listed systems to reduce flame spread and smoke development of PVC, CPVC, PB, PE, PP, PV, PVDF, and ABS pipes and coated electrical cables in return air plenums

### FireMaster UI-T-Wrap

- Up to 2 hour fire ratings
- Fuel oil line protection
- Fully encapsulated for easy handling and installation

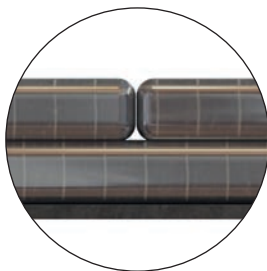


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### Typical applications

- Commercial kitchen grease ducts
- Air ventilation ducts
- Life safety ducts
- Stairway pressurization ducts
- Clothes dryer exhaust ducts
- Hazardous fume and chemical exhaust ducts
- Trash and linen chutes
- T-Rating Collar for Firestop Systems
- Limit smoke and flame in plenums
- Electrical circuit integrity protection
- Structural steel beams and columns



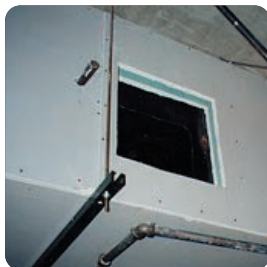
**Cross section of grease duct insulation**

duct fire dynamics that could potentially burn up to 2000°F (1093°C) within minutes.

The traditional method of enclosing ducts and other critical infrastructure in a fire resistive enclosure is fire resistance rated rigid drywall shafts.

The historical justification for drywall was based on the ASTM E119, (ISO 834) wall test which represents sustained room fire temperatures with one dimensional fire exposure, and not the unique 3-D transient and volatile grease

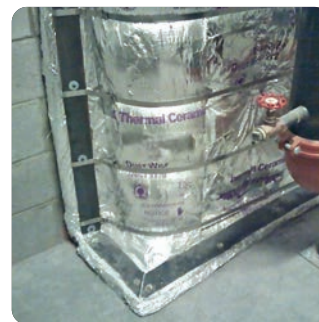
Even with an air gap, drywall with its temperature limitations of 125°F (52°C) could be exposed to temperatures in excess of that during normal cooking operations, potentially resulting in a premature dehydration of the shaft's inner walls, compromising the integrity of the drywall protective enclosure.



**1 & 2 hour protection of ducts**



**Clothes dryer exhaust enclosure**



**Tested solutions for tight spaces**



**Firestop systems for up to 3 hour F&T rating**

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