

## North Central TF-III (Spec)

### AIR FILTRATION SPECIFICATIONS

Door was evaluated for air infiltration in general accordance with ASTM E 283 and NAGDM 105-86. "Test Method for Thermal Transmittance and Air Infiltration of Garage Doors".

#### Title of Test

Air Infiltration @ 0.56 psf (15 mph)  
Air Infiltration @ 1.56 psf (25 mph)

#### Results

0.05 cfm/ft<sup>2</sup>  
0.10 cfm/ft<sup>2</sup>

\*For complete test results please contact North Central Door Company.

### FEATURES

1. Effective Polystyrene insulation is bonded to each steel skin, providing strong thermal protection to the very edge of each section.
2. Tough PVC seal provides a continuous thermal break on all sections that reduces thermal transmission. Uniquely designed tongue and groove section joints create a weather-resistant seal against rain, snow and wind.
3. Strong embossed hot-dipped galvanized steel. The pre-finished exterior and interior are then coated with a baked-on polyester primer and acrylic finish.
4. 18-gauge hot-dipped galvanized recessed and concealed hardware back-up plates are carried the full height of the section, providing superior strength and durability than commonly-used hinge pads.
5. End stiles are 18-gauge, hot-dipped galvanized steel.
6. Our tough "U"-shaped bottom weather-seal helps protect against the elements



\*Calculated R values are in accordance with DASMA guidelines under TDS - 163.

### SPECIFICATIONS

#### Part 1 – General

1.01 Work Included – The doors will be Therma-Shield III as manufactured by North Central Door Co., Inc. of Bemidji, Minnesota.

1.02 Related Work – Opening preparation, structural metal work, access panels finish or filed painting, field electrical wiring, wire, conduit, fuses, and disconnect switches are in the Scope of Work of other divisions or trades.

#### Part 2 – Product

2.01 Door Sections – TS-III sections shall be 3” thick, roll formed from commercial quality hot dipped galvanized steel per ASTM A-525. Exterior and interior skins to have a two-coat baked on polyester enamel finish over an epoxy primer. Door sections constructed of wood grain embossed 26 gauge interior and exterior skins, pressure bonded to a 2-13/16” thick expanded polystyrene insulation core (no CFC’s). Interior and exterior skins to be separated by a continuous dual durometer vinyl extrusion to form an effective thermal break and a complete weather-tight seal along section joint. End stiles to be 18 gauge, separated from exterior skin with vinyl thermal break.

2.02 Track – Hot dipped galvanized steel per ASTM A-526, 2” (50.8 mm) or 3” (76.3 mm) depending on door size. Tracks to be continuous angle mounted and fully adjustable for sealing door to jamb. Continuous angle size to be not less than 2-5/16” (58.7 mm) x 5” (127 mm) x 3/32” (2.4 mm) on 2” (51 mm) and 3” (88.9 mm) x 6” (152 mm) x 1/8” (3.2 mm) on 3 1/2” (76.2 mm) track. Horizontal track to be adequately reinforced with continuous angle.

2.03 Hardware – All hinges and brackets made from galvanized steel. 2” (50.8 mm) or 3” (76.2 mm) diameter track rollers have steel ball bearings.

2.04 Spring Counterbalance – Heavy duty oil tempered wire torsion springs on continuous ball bearing cross header shaft. Galvanized aircraft type lifting cables with minimum safety factor of 5 to 1.

2.05 Insulation – Will be 2-13/16” thick expanded polystyrene (no CFC’s) with an R-value of 16.25 and U-value of 0.06 when tested in accordance with ASTM C-177.

2.06 Weather Stripping – Door to be finished with a complete weather-stripping system to reduce air infiltration. Top of door provided with EPDM rubber sealing. Bottom of door to have flexible U-shaped vinyl seal encased in extruded aluminum retainer to conform to irregularities in floor. Optional jamb seal to be Neoprene rubber blade type in aluminum retainer attached to jamb with mechanical fasteners. Weather-stripping to be replaceable without removal of track, angle mounting, or door hardware. Maximum air leakage per foot of door perimeter (floor, jamb and header) shall not exceed .81 CFM (6.36 cm<sup>3</sup>/min.) @ 25 MPH (40.2 KM/hr.). No air leakage shall be detected between section joints when tested in accordance with ASTM E-283.

2.07 Lock – Interior Locking – Interior dead bolt is provided with hole to receive padlock.

2.08 Glazing – Lite inserts to be 24” (620 mm) x 8” (203 mm) or 24” (610 mm) x 12” (305 mm) thermal type, 2” (51 mm) insulated glass. Glass unit to be encased in two piece injection molded polypropylene plastic frame.

2.09 Warranties – TS-III Ten Year Delamination and Ten Year Rust Limited Warranties – In addition to the North Central Door Co. one year limited warranty, and subject to the conditions and limitations stated in the warranty, doors shall be free from delamination of the expanded polystyrene insulation and its exterior and interior skins for ten years from delivery date. The expanded polystyrene will maintain its R-value for ten years from delivery date as tested in accordance with ASTM C-236.

### **Part 3 – Execution**

3.01 Installation – North Central Door Co.,LLC. Series Thermal Flush doors shall be installed by authorized North Central Door Co., LLC Distributor.