## SELECTION & SPECIFICATION DATA

<table>
<thead>
<tr>
<th>Generic Type</th>
<th>A Portland cement based, Spray-applied Fire Resistive Material (SFRM) designed for the fire protection of structural steel in general purpose areas with prolonged exposure to high humidity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>A nominal 350 kg/m³ (22 lb./ft³) density (average) SFRM intended for the fire protection of structural columns, beams joists, decks, walls, roofs, girders, floors and pre-cast concrete units. It is tested and certified for fire resistance ratings up to 4 hours. It was specifically formulated for high humidity areas such as garages and is resistant to damage and moisture. Southwest Type 7GP™ is a trademark of the Southwest Fireproofing products Company.</td>
</tr>
</tbody>
</table>
| Features     | - Damage resistant and permanent.  
- Noncombustable  
- High build  
- Moisture resistant  
- Asbestos-free-complies with WHMIS, EPA and OSHA regulations.  
- Mineral Wool free  
- Styrene free – no toxic decomposition gases  
- Economical: Maintains products on budget  
- Design flexibility over 100 UL/cUL designs. |
| Colour       | Gray  
*Product colour may vary due to variations in colour or Portland cement. |
| Finish       | Textured |
| Primers      | Primers are not required or recommended. If a primer is specified, or steel is primed, bond strength must meet minimum UL/cUL criteria. A/D Type TC-55 Sealer is used as a primer/bonding agent to meet this requirement where specified. Southwest DK3 (Spatter Coat) must be used as a primer/bonding agent on cellular decks and roof decks per UL/cUL requirements. Contact A/D Technical Service for further information. Southwest Fireproofing materials neither promote nor prevent corrosion. Fireproofing should not be considered part of the corrosion protection system. |
| Fireproofing | Generally not required. In severely corrosive atmospheres, consult A/D Technical Service for selection of coating most suitable for the operating environment. |
| Topcoats     |  |
| Application  | 19mm (¾”) |
| Thickness    |  |
| Limitations  | Not intended for permanent direct exposure to weather, exterior use or excessive physical abuse beyond normal construction cycles. Not recommended for use as refractory cement or where operating temperatures exceed 93°C (200°F). |

## SUBSTRATES & SURFACE PREPARATION

| General       | Prior to application, all substrates must be clean and free of loose scale, dirt, oil, grease, condensation, or any other substance that would impair adhesion. For certain designs, mechanical attachment or the application of Type DK3 (Spatter Coat) may be required. Contact A/D Technical Service for further information. Fireproofing shall be applied to the underside of roof deck assemblies only after all roofing work has been completed, and all roof traffic has ceased. When applying to flexible roof systems it is required that Southwest DK3 (Spatter Coat) is used. Also be sure that all roof work is completed and water tight before commencing installation of fire protection. Roof traffic shall be limited to maintenance after fire protection is applied and cured. No fireproofing shall be applied prior to completion of concrete work on steel floor decking. |
| Galvanized    | Prior to application, all substrates must be clean and free of loose scale, dirt, oil, grease, condensation, or any other substance that would impair adhesion. For certain designs mechanical attachment or the application of Southwest Type DK3 (spatter coat) may be required. Contact A/D Technical Service for further information. |
| Steel Joists  | Painted steel joists do not require adhesive, lath or fastening devices. It is acceptable to apply directly to steel joists. |
Applied to painted/primed steel decking only if permitted by the UL/cUL design. If the painted/primed deck is not an approved substrate, metal lath must first be secured to the deck surfaces in accordance with the UL/cUL requirements.

Painted/primed structural steel is generally not approved by UL/cUL as an acceptable substrate for SFRMs unless the paint or primer was included in the fire test and or a UL/cUL listed for SFRM applications to structural steel. UL/cUL has established conditions that must be satisfied for application to primed or painted structural steel, including: minimum bond strength criteria; dimensional limitations for the structural members; use of a bonding agent or adhesive such as A/D Type TC-55 Sealer; use of metal lath to provide a mechanical bond; or, use of mechanical breaks of metal lath strips or steel pins and disks. Refer to the UL Fire Resistance Directory-Volume 1 for details or contact A/D Technical Service before applying to any painted / primed steel beams or columns.

PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM D2240, Shore D Hardness,</td>
<td>20</td>
</tr>
<tr>
<td>ASTM E136, Combustibility</td>
<td>Passed,( non-combustible)</td>
</tr>
<tr>
<td>ASTM E-605, Density (1,2)</td>
<td>352 kg/m³ (22 pcf) nominal</td>
</tr>
<tr>
<td>ASTM E-736, Cohesion / Adhesion(3)</td>
<td>&gt;95.8 kPa (&gt;2000 psf)</td>
</tr>
<tr>
<td>ASTM E-759, Deflection</td>
<td>Passed</td>
</tr>
<tr>
<td>ASTM E-760, Impact</td>
<td>Passed</td>
</tr>
<tr>
<td>ASTM E-761, Compressive Strength</td>
<td>1840 kPa (38448 psf)</td>
</tr>
<tr>
<td>ASTM E-84, Surface Burning</td>
<td>Flame Spread: 0, Smoke Development: 0</td>
</tr>
<tr>
<td>ASTM E-859, Air Erosion</td>
<td>0.00g/m² (0.00 g/ft²)</td>
</tr>
<tr>
<td>ASTM E-937, Corrosion</td>
<td>Passed</td>
</tr>
<tr>
<td>ASTM G-21, Fungi Resistance</td>
<td>Passed (No growth)</td>
</tr>
</tbody>
</table>

(1) Air dry at ambient conditions to constant weight. Do not force cure. Use ASTM E605 Positive Bead Displacement method utilizing #8 lead shot or 1mm unexpanded polystyrene beads. Test density in accordance with AWCI Technical Manual 12-A (Standard Practice for the Testing and Inspection of Field Applied Sprayed Fire-Resistive Materials, an Annotated Guide)
(2) 19/18 pcf (minimum) required for UL/cUL designs
All values derived under controlled laboratory conditions
Test reports and additional data available upon written request.

MIXING

1. Use a minimum 340 - 453 litre (12 - 16 cubic foot) heavy-duty mortar mixer capable of rotating at 40 rpm with rubber tipped blades that wipe the sides.
2. Use continuous feed mixer. Contact A/D Technical Service for recommendation. Densities may vary when using this type of mixing equipment.

Always mix with clean potable water. The mixer shall be kept clean and free of any pervious mixed materials which may cause premature setting of product. A 2-bag mix is recommended for paddle type mixers. Mix time should be approximately 2 minutes at 40 rpm. Do not over mix. The material volume should not go over center bar of mixer. Use 37.8 to 41.6 litres (10 to 11 gallons) of water per 22.7kg (50 lb.) bag. Add water to the mixer first with blades stopped. With mixer turned on, add material to the water and begin mixing.

Density

For information and recommendations obtaining the proper density and yield, contact the local A/D representative or A/D Technical Service.
APPLICATION EQUIPMENT

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

**Pump**

- This material can be pumped with a wide range of piston, rotor stator and squeeze pumps designed to pump cement/plaster materials, including:
  - Essick- model 3FM9/3FM5E (Rotor Stator/2L4)
  - Putzmeister- model #S5EV (Rotor Stator/2L6)
  - Hy-Flex- model #HZ-30E (Rotor Stator 2L6)
  - Hy-Flex- model #H320E (Piston)
  - Strong Mfg.- model #Spraymate 60 (Rotor Stator/2L6)
  - Airtech- model# Swinger (Piston)
  - Mayco- model#PF30 (Dual Piston)
  - Thomsen- model #PTV 700 (Dual piston)
  - *Marvel kit must be removed from piston pumps

**Ball Valves**

- Ball valves should be located at the manifold and at the end of the surge hose to facilitate cleaning of the pump and/or hoses.

**Material Hoses**

- Use 50.8mm (2”) transfer hose for maximum practical length to spray area. Follow with a 406mm (16”) tapered fitting to a 38.1mm (1½”) I.D. hose for 15.2m (50 ft.). Then taper to 31.8mm (1¼”) for 7.62 m (25 ft.). Then taper to 25mm (1”) whip hose for 4.6 m to 6.1m (15 ft. to 20ft.).

  - All connections should have conical tapered fittings.

**Standpipe**

- Use 50.8mm (2”) I.D. aluminum tubing with quick external disconnections. Elbows should be 50.8mm (2”) I.D. with minimum 914.4mm (36”).

**Nozzle/Gun**

- Use a minimum 25mm (1”) I.D. plaster type nozzle with shut off valve, swivel and air shut off valve.

**Orifice Sizes and Shields**

- 9.5mm to 15.9mm (3/8” to 5/8”) I.D. “blow-off” tips. (mini-shields optional).

**Compressor**

- Compressor on pump must be capable of maintaining minimum 206kPa (30 psi) and 9 to 11 cfm at the nozzle.

**Air Line**

- Use 15.9 mm (5/8”) I.D. hose with a minimum bursting pressure of 689kPa (100 psi).

APPLICATION PROCEDURES

**General**

- Thicknesses of 19mm (¾”) or less can be applied in one pass. When additional coats are required to reach specific thickness, apply subsequent coats after the prior coat has set. If preceding coat has dried, dampen the surface with water prior to application of additional coats. Type DK3 (Spatter Coat) shall be applied to all cellular floor units and to all roof deck systems and where indicated by the UL/cUL design. For complete application instructions, refer to the Southwest Fireproofing Products Field Application Manual.

**Field Testing**


**Finishing**

- Normally left as sprayed texture finish
**APPLICATION CONDITIONS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Material Surface</th>
<th>Ambient</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>4°C (40°F)</td>
<td>4°C (40°F)</td>
<td>0%</td>
</tr>
<tr>
<td>Maximum</td>
<td>38°C (100°F)</td>
<td>52°C (125°F)</td>
<td>95%</td>
</tr>
</tbody>
</table>

*Air and substrate temperatures shall be maintained 24 hours before, during and 24 hours after application. Contact A/D Technical Service for recommendations.

**CURING SCHEDULE**

<table>
<thead>
<tr>
<th>Surface Temp. &amp; 50% Relative Humidity</th>
<th>Dry to Recoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>25°C (77°F)</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

*Recoat times will vary based upon ambient conditions and air movement. Once the product has set, it is suitable for general purpose areas with prolonged exposure to moisture or high humidity.

**CLEANUP & SAFETY**

**Cleanup**
- Pump, mixer and hoses should be cleaned with potable water. Sponges should be run through the hoses to remove any material remaining in the hoses. Wet overspray must be cleaned up with soapy or clean, potable water. Cured overspray material may be difficult to remove and may require chipping or scraping to remove.

**Safety**
- Read and follow all caution statements on this product data sheet (pds) and on the Safety Data Sheet (SDS.)
- Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.

**Overspray**
- Adjacent surfaces shall be protected from damage and overspray. Sprayed fireproofing materials may be difficult to remove from surfaces and may cause damage to architectural finishes.

**Ventilation**
- When used in enclosed areas, thorough air circulation must be used during and after application until the product is dry.

**TESTING / CERTIFICATION / LISTING**

- Tested in accordance with ASTM E119/ UL 263 and CAN/ULC-S101 at Underwriters laboratories, Inc. and listed by UL in the following designs (most common in bold):
  - **Protected Floor/Ceiling:**
    - D739, D788 (Restrained/Unrestrained) Additional designs: A702, D701, D703, D704, D705, D706, D708, D709, D710, D711, D712, D715, D716, D722, D723, D725, D726, D727, D728, D729, D730, D740, D742, D743, D744, D745, D746, D747, D748, D750, D751, D752, D753, D754, D756, D758
  - **Unprotected Floor/Ceiling:**
    - D949 (Restrained/Unrestrained) Additional designs: D905, D907, D909, D910, D916, D917, D920
  - **Concrete Floor/Roof:**
    - J718 (Restrained/Unrestrained) Additional designs: G701, G702, G703, J701, J704, J705, J706, J919, J957, J966
  - **Beam/Joist:**
  - **Protected Roof/Ceiling:**
    - D741 (Restrained/Unrestrained) Additional designs: P675, P676, P701, P708, P709, P710, P711, P714, P717

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Unprotected Roof/Ceiling:
D921 (Restrained/Unrestrained)
Additional designs: P901, P902, P907, P919, P920, P923, P937

Metal Wall Assembly:
U703 (Restrained/Unrestrained)

Columns:
X771, Y725
Additional designs: X527, X701, X704, X722, X723, X772, X751, X752, X808, X813, X819, X820, X821, X822

City of New York
MEA-55-04-M Vol. II (Wall)
MEA 56-04-M Vol. II (Beam and Floor / Ceiling)
MEA 409-02-M Vol. III (Columns and Roof / Ceiling)

PACKAGING, HANDLING & STORAGE

Shipping Weight (Approximate) | 22.7 kg (50 lb.)
Storage                        | Store indoors in a dry environment between 0°C to 52°C (32°F to 125°F)
                                | *Material must be kept dry or clumping of material may occur.
Shelf Life                     | 12 months
Packaging                      | 22.7 kg (50 lb.) bags

Type 7GPTM is manufactured under license to Southwest Fireproofing™

WARRANTY

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