### SELECTION & SPECIFICATION DATA

<table>
<thead>
<tr>
<th>Generic Type</th>
<th>A gypsum based, sprayed applied fire resistive material (SFRM) designed for the fire protection of interior structural steel.</th>
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<tbody>
<tr>
<td>Description</td>
<td>This is an extended set, spray applied fire resistive material that can be left in the equipment and lines for up to 4 days without setting. It was developed to be used as a holding material to leave in equipment and lines to reduce start up and clean up times when using Southwest Type 5 materials. This material requires injection with Accelerator A-20 to reach final set. It is intended for use with Southwest Type 5GP™ and Southwest Type 5MD™ for applications to interior structural columns, beams, joists, decks, walls, roofs, girders, floors and pre-cast concrete units.</td>
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</tbody>
</table>
| Features     | - Extended set time – Up to 4 days.  
- Labour and material savings.  
- Reduced start up and clean up times.  
- Increased production.  
- Accelerator A-20 injection is required for final set.  
- Styrene free – No toxic decomposition gases.  
- Economical – Maintains project on budget.  
- Multiple cUL and UL Designs - Can be used with all Southwest Type 5GP™ and Southwest Type 5MD™ designs. |
| Color        | Green |
| 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. Southwest Type DK3™ spatter coat must be used as a primer/bonding agent on cellular decks and roof decks per UL/cUL design requirements. Contact A/D for further information. Southwest Fireproofing materials neither promote nor prevent corrosion. Fireproofing should not be considered part of the corrosion protection system.

### Fireproofing Topcoats

Generally not required. In severely corrosive atmospheres, consult A/D Technical Service for selection of coating most suitable for the operating environment.

### Application Thickness

<table>
<thead>
<tr>
<th>Thickness</th>
<th>12.7mm – 15.8mm (½” - 5/8”)</th>
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<tbody>
<tr>
<td>Max. recommended thickness per pass.</td>
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### Limitations

Not intended for permanent direct exposure to weather 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 substance that would impair, dirt, oil, grease, condensation, or any other adhesion. For certain designs, mechanical attachment or the application of Type DK3 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 Type 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.

#### Painted/Primed Structural Steel

Painted/primed structural steel is generally not approved by UL/ULC as an acceptable substrate for SFRMs unless the paint or primer was included in the fire test and or a UL/ULC listed for SFRM applications to structural steel. UL/ULC have 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 or the ULC Fire Resistance Directory for details or contact A/D Technical Service before applying to any painted / primed steel beams or columns.
Painted/Primed Steel Decks
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 Steel Joists
Painted steel joists do not require adhesive lath or fastening devices. It is acceptable to apply Type 5GP directly to steel joists.

MIXING

1. Use a minimum 340-453 litre (12-16 ft³) heavy-duty mortar mixer capable of rotating at 40 rpm with rubber tipped blades that wipe the sides primed steel beams or columns.
2. Use continuous feed mixer. Contact A/D technical service for recommendation. Densities may vary when using this type of mixing equipment.

Mixing
Always mix with clean potable water. The mixer shall be kept clean and free of any previously mixed materials which may cause premature setting of product. A 3-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 41.6-49.2L (11-13 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. The amount of water necessary will depend on the amount of time the material will be left in the equipment and lines:
- Overnight: 41.6L (11 gallons)
- 2-3 days: 45.4L (12 gallons)
- 4 days: 49.2L (13 gallons)

The maximum time the material can be left in the equipment and lines is 4 days.

Density
For information and recommendations to obtain the proper density and yield, contact the local AD Fire-Carboline Fireproofing 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# FM9/FM5E (Rotor Stator/2L4)
- Putzmeister– model# S5EV (Rotor Stator/2L6)
- Hy-Flex– model# HZ-30E (Rotor Stator/2L6)
- Hy-Flex– model# H320E (Piston)
- Sunspray– model# EZ88 (Rotor Stator/2L6)
- Strong Mfg.– model# Spraymate 60 (Rotor Stator/2L6)
- Airtech– 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 Hose
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 2.4mm (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 689 kPa (100 psi).

APPLICATION PROCEDURES

General

When the material hopper is empty after the last batch of Type 5GP, turn off the Accelerator A-20 injection pump. Turn off the feed valve to the material nozzle. Mix the Southwest Type 5AR material with 41.6-49.2L (11-13 gallons) of water depending on the amount of time the material will be left in the equipment) Mix the material for 2 minutes. Fill the hopper with the Type 5AR slurry. Pump the material until the green colour is coming out at the spray nozzle. Continue pumping the material until the hopper is almost empty then cover with plastic to keep the material from drying out. Remove the orifice and place end of spray nozzle in container of water to prevent drying.

When spraying commences, mix solution of Accelerator A-20 following the product’s mixing procedures. Remove the plastic from the hopper and replace the nozzle orifice. Mix a batch of Southwest Type 5GP or Southwest Type 5MD following the product’s mixing procedures. Begin spraying the material with injection of the Accelerator A-20 solution following the Southwest Fireproofing Injection procedures for High Production (this enables the material to set). The material should be sprayed out in a thin coat (12.7mm-15.9mm (1/2” - 5/8”)). A colour change back to tan indicates that all of the Southwest Type 5AR has been pumped out. A thin coat of Southwest Type 5GP or Southwest Type 5MD can then be applied over the Southwest Type 5AR for uniform colour.

*For complete application instructions, refer to the Southwest Fireproofing products Feld Application Manual.

Field Tests

The architect and/or owner may specify independent testing of spray applied fire resistive materials. Testing shall be for thickness and density in accordance with the applicable building code; AWCI Technical Manual 12-A, Standard Practice for the testing and Inspection of Field Applied Sprayed Fire-Resistive Materials, an Annotated Guide; and ASTM E605, Standard Test Methods for Thickness and Density of Spray Fire-Resistive Materials Applied to Structural Members.

Finishing

Normally left as a sprayed texture finish. Surface may be over sprayed with Southwest Type 5GP or Southwest Type 5MD once set.

APPLICATION CONDITIONS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Material</th>
<th>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>4°C (40°F)</td>
<td>95%</td>
</tr>
</tbody>
</table>

*Air and substrate temperatures shall be maintained 24 hours before, during and 24 hours after application.

CURING SCHEDULE

<table>
<thead>
<tr>
<th>Surface Temp. &amp; 50% Relative Humidity</th>
<th>Dry to Recoat</th>
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<tr>
<td>25°C (77°F)</td>
<td>20 Minutes</td>
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*Recoat time is based on injection with Accelerator A-20. Material must be protected from rain and running water for 24 hours after application.

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.

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

Underwriters Laboratories, Inc.

Classified for fire resistance by Underwriter’s Laboratories, Inc in accordance to ASTM E-119 (UL263, CAN/ULC-S101). Southwest Type 5AR is co-listed in all UL/cUL designs that list Southwest Type 5GP and Southwest Type 5MD.

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

*Shelf Life: (actual stated shelf life) when stored indoors in a dry place and in original unopened containers.

Packaging

22.7 kg (50 lb.) bags

*Southwest Type 5AR, Type 5GP, Type 5MD and Type DK3 are trademarks of Southwest Fireproofing Products Company

Type 5ARTM is manufactured under license to Southwest Fireproofing™

WARRANTY

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