SOUTHWEST TYPE DK3™

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	A cementitious, spray applied spatter coat.
Description	A cement and vermiculite based, spray applied spatter coat designed to be used in conjunction with Southwest fireproofing materials to enhance bonding properties on cellular steel decking and roof deck systems.
Features	• Excellent bonding properties • Fast overcoat time • Noncombustible • Asbestos-free – complies with EPA and OSHA regulations. • Mineral Wool free – no airborne fibers. • Styrene free – no toxic decomposition gases.
Color	Gray Product color may vary due to variations in color of Portland cement.
Finish	Textured
Primer	Primers are not required or recommended. If a primer is specified or steel is primed, bond strength must meet minimum UL criteria. Contact Carboline Technical Service for further information. Southwest Fireproofing materials neither promote nor prevent corrosion. Fireproofing should not be considered part of the corrosion protection system.
Theoretical Coverage Rates	600-800 ft² (55-74 m²) per bag Apply product so that coverage does not exceed 70% of the surface area. Adjust spray pattern so that material does "spatter" from nozzle. 30% of the deck surface must be visible after material is applied to achieve correct coverage.
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 200°F (93°C).

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. Material shall be applied to the underside of roof deck assemblies only after all roofing work has been completed, and all roof traffic has ceased. 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.

MIXING & THINNING

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

MIXING & THINNING

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 2 bag mix is recommended for paddle type mixers. Mix time should be approximately 2 minutes minutes at 40 rpm. Do not over mix. The material volume should not go over center bar of mixer. Use 9 to 10 gallons (34.1 to 37.8 liters) of water per 50 lb. (22.7 kg) bag. Add water to the mixer first with blades stopped. With mixer turned on, add material to the water and begin mixing. The mix will appear wet. Agitate occasionally if left standing so that mixture does not settle. If material is sandwiched between Southwest Type 5 mixes (in the same mixing equipment), the Type 5 batches before and after must have retarder blend added (usually 2 batches before and after is sufficient). Use 2.5 oz. (70.9 g) of retarder per batch of Type 5. Retarder is not required for Southwest Type 7 applications.
Pot Life	2 hours at 75°F (24°C) Pot life of material will be shorter at higher temperatures.
Density	For information and recommendations to obtain the proper density and yield, contact the local Carboline representative or Carboline Fireproofing Technical Service.

APPLICATION EQUIPMENT GUIDELINES

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# 321E (Piston) 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) Graco - model# F340e (Piston) Graco - model# F800e (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 2" transfer hose for maximum practical length to spray area. Follow with a 16” (406 mm) tapered fitting to a 1-1/2” (38.1 mm) I.D. hose for 50' (15.2 m). Then taper to 1-1/4” (31.8 mm) for 25'. Then taper to a 1” (25 mm) whip hose for 15' to 20' (4.6 m - 6.1 m). All connections should have conical tapered fittings.
Standpipe	Use 2” (50.8 mm) I.D. aluminum tubing with quick external disconnections. Elbows should be 2” (50.8 mm) I.D. with minimum 36” (0.9 m) lengths.
Nozzle/Gun	Use a minimum 1” (25 mm) I.D. plaster type nozzle with shut off valve, swivel and air shut off valve.
Orifice Size and Shields	9/16" to 5/8” (14.3 mm - 15.9 mm) I.D. “blow-off” tips (mini shields optional)

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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.

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

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

APPLICATION PROCEDURES

General | Thicknesses of 3/8" (9.5 mm) or less can be applied in one pass. Material is applied in one monolithic coat. Type DK3 (spatter coat) shall be applied to all cellular floor units and to all roof deck systems where indicated by the UL design. Allow material to set for a minimum of 30 minutes before applying fireproofing materials. It is acceptable to apply Type DK3 (spatter coat) the prior day, but it is not recommended to exceed 24 hours before fireproofing is applied. Do not start work if ambient temperature is expected to drop or remain below 32°F (0°C) for 48 hours after application. For complete application instructions, refer to the Southwest Fireproofing Products Field Application Manual.

Field Tests | Test 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 Sprayed Fire-Resistive Materials Applied to Structural Members).

Finishing | Normally left as a sprayed texture finish.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	40°F (4°C)	40°F (4°C)	40°F (4°C)	0%
Maximum	100°F (38°C)	125°F (52°C)	110°F (43°C)	95%

Air and substrate temperatures shall be maintained 24 hours before, during and 24 hours after application. Contact Carboline Fireproofing Technical Service for recommendations.

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 | Follow all safety precautions on the Safety Data Sheet. It is recommended that personal protective equipment be worn, including spray suits, gloves, eye protection and respirators.

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.

PACKAGING, HANDLING & STORAGE

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

WARRANTY