



FIRE PROTECTION SYSTEMS

Southwest™ Fireproofing Type 5 MD™

Selection & Specification Data

Generic Type Medium density, cementitious, noncombustible, inorganic fireproofing.

Description A single package powder component mixed with clean, potable water before application. Type 5MD™ is intended for application to interior 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.

Features

- Cementitious – Durable, remains in place during construction and beyond.
- Noncombustible
- Excellent build per pass on all surfaces including columns, beams and decks.
- Applicator friendly – no alum required for increased coverage and easy clean-up.
- Asbestos-free.
- Mineral Wool free – no airborne fibers.
- Styrene free – no toxic decomposition gases.
- Economical – Maintains project on budget.
- Multiple ULC and cUL Designs – provides for design flexibility with over 100 cUL designs.
- Quality Manufactured – under strict A/D quality standards.
- ULC/ULI/cUL inspection service, consistent quality in every bag.
- Ready to use – No site additives required.

Finish Type 5MD™ is normally left as a sprayed finish.

Primers Type 5MD™ neither promotes nor prevents corrosion. Fireproofing should not be considered part of the corrosion protection system. Primers are not required or recommended. For contour applications where steel is primed, bond strength must meet minimum ULC criteria. Please contact A/D for further information.

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

Selection & Specification Data (cont)

Thickness Required thickness depends on desired rating and assembly to be fireproofed. Refer to design details.

Limitations Type 5MD™ is not intended for direct exposure to weather or excessive physical abuse. Not recommended for use as refractory cement or where operating temperatures exceed 93°C (200°F). Contact your A/D representative for alternate product recommendations.

Physical Data (Typical Values)

Type 5MD™ Colour	Non-Uniform Tan
Density ⁽¹⁾ , ASTM E-605	352 kg/m ³ nominal (22 pcf)
Combustibility, CAN/ULC-S114	Passed, noncombustible
Compressive Strength, ASTM E-761	813 kPa (118 lbf/in. ²)
Cohesion / Adhesion, ASTM E-736	>19.1 KPa (>400 lbf/ ft. ²)
Impact, ASTM E-760	Passed
Deflection, ASTM E-759	Passed
Corrosion of Steel, ASTM E-937	Passed
Air Erosion, ASTM E-859	0.00 g/m ² (0.00 g/ft ²)
Surface Burning, ASTM E-84	Flame Spread: 0, Smoke: 0
Fungi Resistance, ASTM G-21	Passed, no growth
DOD Classification, ASTM-1042	Type I, NCR 50, class (a) category A
Coverage per 50 lb. bag ⁽²⁾	30 bd. ft at 22 pcf

⁽¹⁾ Air dry at ambient conditions to constant weight. Do not force cure. Use ASTM E605 bead displacement method.

⁽²⁾ Theoretical gross. Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

Thermal Values

Determined in accordance with ASTM C177 @ 18°C (64°F)

Thermal Conductivity,	0.086 W (mK) 0.597 (Btu-in) / (hr-ft ² °F)
Thermal Resistance,	0.233 m ² K / W 1.325 (hr-ft ² °F) / Btu
R-Value / in.	1.7 (hr-ft ² °F) / Btu

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Physical Data (Typical Values) cont.

Acoustics, ASTM C-384 (applied to gypsum board)					
Min. Thickness, mm (in.)	Octave band α R values				NRC
	250	500	1000	2000	
7.6 (0.3 in.)	0.21	0.29	0.30	0.84	0.37
11.4 (0.45 in.)	0.29	0.37	0.53	0.70	0.51

Approvals

Construction Type	Rating(s), hours					Design No.	
	1	1.5	2	3	4	ULI	ULC
Protected Floor, Ceiling	B	B	R	R	-	D703	-
	B	B	B	B	B	D739	-
	B	B	B	B	-	D743	-
	-	U	U	R	-	D753	-
	-	B	R	-	-	-	F817
	-	U	U	R	R	D754	-
	B	-	-	-	-	-	F818
B	B	B	B	B	D788	-	
Unprotected Floor, Ceiling	R	R	R	R	-	D916	-
	-	R	R	R	-	D917	-
	B	B	B	B	B	D949	-
	R	R	R	-	-	-	F906
Concrete Floor or Roof	U	-	R	-	-	J701	-
	-	-	B	B	B	J704	-
	-	-	B	B	B	J705	-
	B	B	B	B	-	J709	-
	B	B	B	B	B	J718	-
	-	-	B	R	R	J919	-
Beam or Joist	B	B	B	B	B	N706	-
	B	U	B	B	B	N708	-
	B	B	B	B	-	N736	-
	B	B	B	-	-	N754	-
	B	B	B	B	B	N791	-
	B	B	B	B	B	S701	-
	B	B	B	-	-	S702	-
	B	B	B	B	-	S715	-
	B	B	B	B	B	S739	-
	B	B	B	B	B	S740	-
	B	B	B	-	-	-	-
Protected Roof, Ceiling	B	B	B	-	-	P701	R705
	B	B	B	-	-	P711	-
	B	B	B	-	-	P717	-
	B	B	B	-	-	P741	-
Unprotected Roof, Ceiling	B	R	R	-	-	P907	-
	R	R	R	-	-	P921	-
Metal Wall Assembly	B	B	B	B	-	U703	-
Columns	-	-	B	B	B	X527	X822
	B	B	B	B	B	X771	Z805
	B	B	B	B	B	X772	-
	B	B	B	B	B	Y725	-

Most frequently used designs are in **bold**.

R - Restrained, U - Unrestrained, B - Both R and U

Other UL Designs not included in the table are:

A702, D701, D704, D705, D706, D708, D709, D710, D711, D712, D715, D716, D722, D723, D725, D726, D727, D728, D729, D730, D740, D742, D744, D745, D746, D747, D748, D750, D751, D752, D756, D758, D905, D907, D909, D910, D920, G701, G702, G703, J957, J966, N401, N404, N732, N756, P708, P709, P710, P675, P676, P714, P901, P902, P908, P919, P920, P923, X701, X704, X722, X723, X751, X752

Other ULC Designs not included in the table are:

X808, X813, X819, X820, X821, Z806, Z807, Z810,
NOTE: Designs are continuously updated and developed.
Contact your A/D Representative for current information.

Caution: When applying Type 5MD™ to flexible roof systems it is required that Type DK adhesive 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 only after fire protection is applied and cured.

Packaging, Handling & Storage

Shipping Weight (Approximate)	22.6 kg (50 lb.) in polyethylene bags.
Storage (General)	Store indoors in a dry environment.
Storage Temperature	0°C (32°F) – 52°C (125°F)
Shelf Life ⁺	1 year

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

Type 5GP™ and Type 5MD™ are manufactured under license to Southwest Fireproofing™ Products by



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