

Uniclass L68117	EPIC F814
CI/SfB	Vu4 (K3)



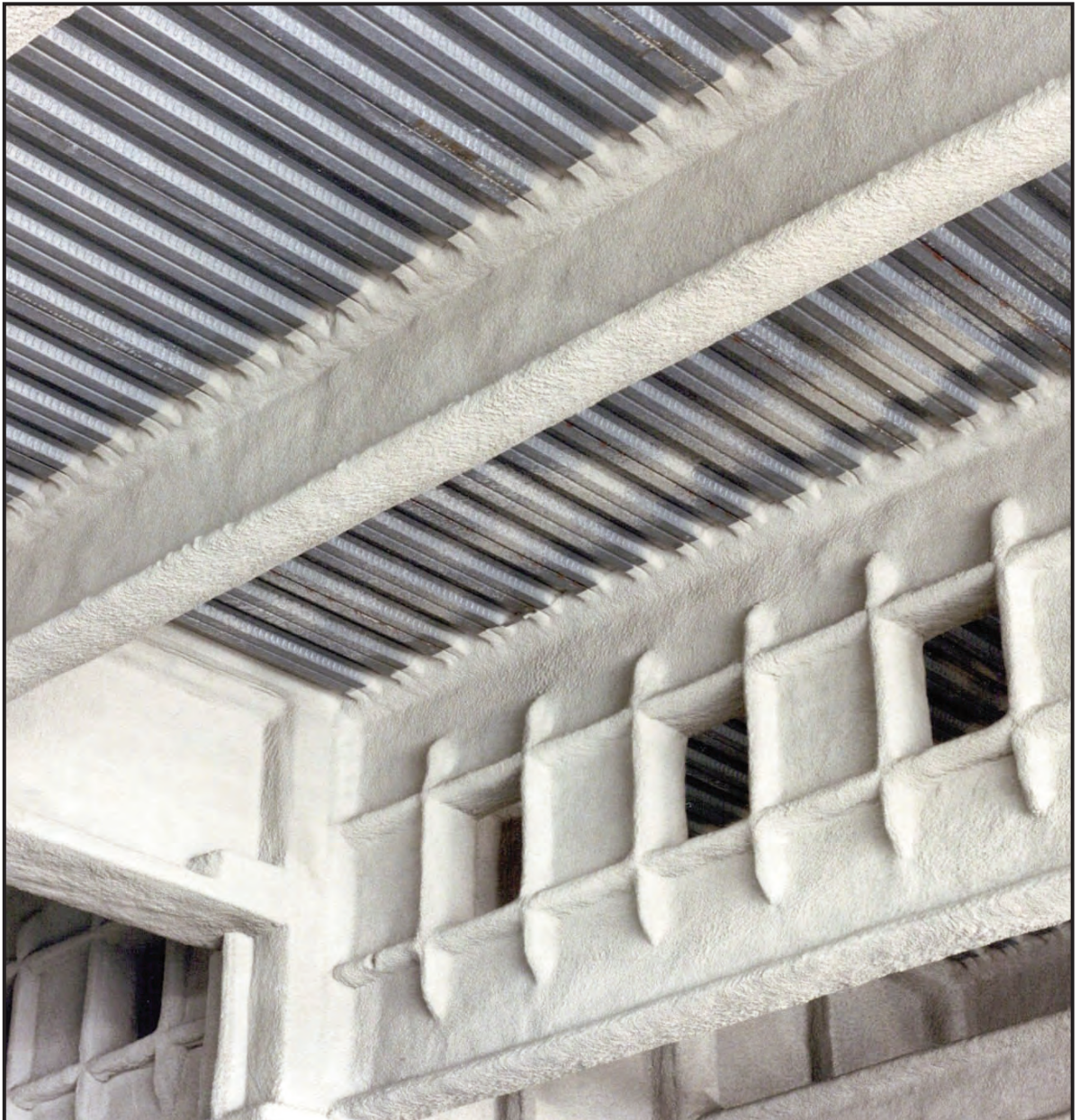
Promat



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

construction applications



www.promat-spray.com

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

INTRODUCTION

CAFCO® 300 is a spray or trowel applied, single package factory controlled premix, based on vermiculite and gypsum, for internal use.

CAFCO® 300 is a lightweight coating that provides very efficient fire resistance with minimal thickness to steel and concrete frames, metal floor and roof decks, and to return air plenums.

Structures protected with CAFCO® 300 can provide fire resistance for up to 240 minutes.

Building types that will benefit from the use of CAFCO® 300 include a wide range of educational, leisure and entertainment centres, and commercial projects.

Properties and performance	
Colour and finish	Off-white with a monolithic spray texture
Theoretical coverage	217m ² /tonne at 15mm thickness
Number of coats	One or more as required
Cure	By hydraulic set
Initial set	10 to 15 hours at 20°C and 50% RH without accelerator
Density	310kg/m ³ ± 15% without accelerator, approximately 10% less with accelerator
Bond impact	No cracks or delamination to ASTM E760
Air erosion resistance	No erosion to ASTM E859
Compressive strength	1.22kg/cm ² to ASTM E761
Deflection effect	No spalling, delamination or cracking to ASTM E759
Flame spread	Class 0 as defined by the Building Regulations
Thermal conductivity	0.078W/mK
Corrosion resistance	Does not promote corrosion of steel. However, a primed substrate is recommended for long term corrosion resistance. See Preparation
pH value	8.0 - 8.5
Fire resistance	Structures protected with CAFCO® 300 have undergone extensive fire resistance tests up to 240 minutes in approved independent laboratories to recognised standards throughout the world, including: <ul style="list-style-type: none"> • UK (BS 476: Part 21) • USA (ASTM E119) • France (August 1999 Ministry Decree) • Belgium (NBN S21-202) • Germany (DIN 4102:1977-09 and DIN EN 1363-1:1999-10) • European Standard ENV 13381: Part 4 The fire resistance test results relate solely to the constructions tested and test conditions imposed



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

FIRE PROTECTION THICKNESS

The thickness of the fire protection for a given period of fire resistance in a cellulosic type fire relates to the A/V ratio of the section.

All column and beam sections have their own specific A/V ratio. Please consult Promat to establish the A/V ratio for a particular beam or column section. TABLES 1 to 18 ascertain the thickness of CAFCO® 300 that meets the required period of fire resistance for I-section beams and H-section columns and hollow section beams and columns.

For advice on thickness calculations for hollow sections, cellular beams, castellated sections, composite floors, upgrading of concrete slabs and more complex situations, please contact Promat Technical Services Department.

TABLE 1. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 350°C

A/V up to	Thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	14mm	19mm	27mm	35mm
40	12mm	12mm	17mm	22mm	32mm	42mm
50	12mm	14mm	19mm	25mm	36mm	48mm
60	12mm	15mm	21mm	27mm	40mm	52mm
70	12mm	16mm	23mm	29mm	43mm	56mm
80	12mm	17mm	24mm	31mm	45mm	60mm
90	12mm	18mm	25mm	33mm	48mm	62mm
100	12mm	19mm	26mm	34mm	50mm	65mm
110	12mm	19mm	27mm	35mm	51mm	67mm
120	12mm	20mm	28mm	36mm	53mm	69mm
130	12mm	20mm	29mm	37mm	54mm	71mm
140	12mm	21mm	29mm	38mm	55mm	-
150	12mm	21mm	30mm	39mm	56mm	-
160	13mm	22mm	30mm	39mm	57mm	-
170	13mm	22mm	31mm	40mm	58mm	-
180	13mm	22mm	31mm	41mm	59mm	-
190	13mm	22mm	32mm	41mm	60mm	-
200	13mm	23mm	32mm	42mm	61mm	-
210	13mm	23mm	33mm	42mm	61mm	-
220	14mm	23mm	33mm	43mm	62mm	-
230	14mm	23mm	33mm	43mm	62mm	-
240	14mm	24mm	33mm	43mm	63mm	-
250	14mm	24mm	34mm	44mm	63mm	-
260	14mm	24mm	34mm	44mm	64mm	-
270	14mm	24mm	34mm	44mm	64mm	-
280	14mm	24mm	34mm	44mm	65mm	-
290	14mm	24mm	35mm	45mm	65mm	-
300	14mm	25mm	35mm	45mm	65mm	-
310	14mm	25mm	35mm	45mm	66mm	-
320	14mm	25mm	35mm	45mm	66mm	-

HEALTH AND SAFETY

Adequate ventilation must be provided during use.

Avoid contact with the skin and eyes by using eye protection, gloves, barrier cream and a face mask.

If the product comes into contact with the skin, wash immediately with soap and water. If the eyes are affected, flush with plenty of water and seek medical attention immediately.

A safety data sheet is available from Promat upon request.

Promat activities are conducted with due regard to all statutory requirements with appropriate safeguards against exposing employees and the public to health and safety risks.

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 2. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 400°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	16mm	22mm	29mm
40	12mm	12mm	15mm	19mm	27mm	35mm
50	12mm	12mm	17mm	22mm	31mm	40mm
60	12mm	14mm	19mm	24mm	34mm	44mm
70	12mm	15mm	20mm	26mm	36mm	47mm
80	12mm	16mm	21mm	27mm	39mm	50mm
90	12mm	16mm	23mm	29mm	41mm	53mm
100	12mm	17mm	23mm	30mm	42mm	55mm
110	12mm	18mm	24mm	31mm	44mm	57mm
120	12mm	18mm	25mm	32mm	45mm	59mm
130	12mm	19mm	26mm	33mm	47mm	60mm
140	12mm	19mm	26mm	33mm	48mm	62mm
150	12mm	20mm	27mm	34mm	49mm	63mm
160	13mm	20mm	27mm	35mm	50mm	64mm
170	13mm	20mm	28mm	35mm	50mm	65mm
180	13mm	21mm	28mm	36mm	51mm	66mm
190	13mm	21mm	29mm	36mm	52mm	67mm
200	13mm	21mm	29mm	37mm	53mm	68mm
210	14mm	21mm	29mm	37mm	53mm	69mm
220	14mm	22mm	30mm	38mm	54mm	70mm
230	14mm	22mm	30mm	38mm	54mm	70mm
240	14mm	22mm	30mm	38mm	55mm	71mm
250	14mm	22mm	30mm	39mm	55mm	72mm
260	14mm	22mm	31mm	39mm	56mm	72mm
270	14mm	23mm	31mm	39mm	56mm	-
280	14mm	23mm	31mm	40mm	56mm	-
290	14mm	23mm	31mm	40mm	57mm	-
300	15mm	23mm	32mm	40mm	57mm	-
310	15mm	23mm	32mm	40mm	57mm	-
320	15mm	23mm	32mm	40mm	58mm	-



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 3. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 450°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	15mm	21mm	27mm
40	12mm	12mm	14mm	18mm	25mm	33mm
50	12mm	12mm	16mm	20mm	29mm	37mm
60	12mm	13mm	17mm	22mm	32mm	41mm
70	12mm	14mm	19mm	24mm	34mm	44mm
80	12mm	14mm	20mm	25mm	36mm	47mm
90	12mm	15mm	21mm	27mm	38mm	49mm
100	12mm	16mm	22mm	28mm	40mm	52mm
110	12mm	16mm	23mm	29mm	41mm	54mm
120	12mm	17mm	23mm	30mm	42mm	55mm
130	12mm	17mm	24mm	31mm	44mm	57mm
140	12mm	18mm	25mm	31mm	45mm	58mm
150	12mm	18mm	25mm	32mm	46mm	59mm
160	12mm	19mm	26mm	33mm	47mm	61mm
170	12mm	19mm	26mm	33mm	47mm	62mm
180	12mm	19mm	26mm	34mm	48mm	62mm
190	12mm	19mm	27mm	34mm	49mm	63mm
200	12mm	20mm	27mm	35mm	49mm	64mm
210	12mm	20mm	27mm	35mm	50mm	65mm
220	13mm	20mm	28mm	35mm	50mm	66mm
230	13mm	20mm	28mm	36mm	51mm	66mm
240	13mm	20mm	28mm	36mm	51mm	67mm
250	13mm	21mm	28mm	36mm	52mm	67mm
260	13mm	21mm	29mm	37mm	52mm	68mm
270	13mm	21mm	29mm	37mm	53mm	69mm
280	13mm	21mm	29mm	37mm	53mm	69mm
290	13mm	21mm	29mm	37mm	53mm	69mm
300	13mm	21mm	29mm	38mm	54mm	70mm
310	13mm	22mm	30mm	38mm	54mm	70mm
320	13mm	22mm	30mm	38mm	54mm	71mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 4. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 500°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	13mm	19mm	25mm
40	12mm	12mm	13mm	16mm	23mm	30mm
50	12mm	12mm	14mm	18mm	26mm	34mm
60	12mm	12mm	16mm	20mm	29mm	38mm
70	12mm	12mm	17mm	22mm	31mm	41mm
80	12mm	13mm	18mm	23mm	33mm	44mm
90	12mm	14mm	19mm	24mm	35mm	46mm
100	12mm	14mm	20mm	26mm	37mm	48mm
110	12mm	15mm	21mm	27mm	38mm	50mm
120	12mm	15mm	21mm	27mm	39mm	51mm
130	12mm	16mm	22mm	28mm	41mm	53mm
140	12mm	16mm	23mm	29mm	42mm	54mm
150	12mm	17mm	23mm	30mm	42mm	55mm
160	12mm	17mm	24mm	30mm	43mm	57mm
170	12mm	17mm	24mm	31mm	44mm	58mm
180	12mm	17mm	24mm	31mm	45mm	58mm
190	12mm	18mm	25mm	32mm	45mm	59mm
200	12mm	18mm	25mm	32mm	46mm	60mm
210	12mm	18mm	25mm	32mm	47mm	61mm
220	12mm	18mm	26mm	33mm	47mm	62mm
230	12mm	19mm	26mm	33mm	48mm	62mm
240	12mm	19mm	26mm	33mm	48mm	63mm
250	12mm	19mm	26mm	34mm	49mm	63mm
260	12mm	19mm	27mm	34mm	49mm	64mm
270	12mm	19mm	27mm	34mm	49mm	64mm
280	12mm	19mm	27mm	35mm	50mm	65mm
290	12mm	20mm	27mm	35mm	50mm	65mm
300	12mm	20mm	27mm	35mm	50mm	66mm
310	12mm	20mm	27mm	35mm	51mm	66mm
320	12mm	20mm	28mm	35mm	51mm	66mm



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 5. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 550°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	18mm	23mm
40	12mm	12mm	12mm	15mm	21mm	28mm
50	12mm	12mm	13mm	17mm	24mm	32mm
60	12mm	12mm	14mm	19mm	27mm	35mm
70	12mm	12mm	16mm	20mm	29mm	38mm
80	12mm	12mm	17mm	21mm	31mm	41mm
90	12mm	13mm	18mm	23mm	33mm	43mm
100	12mm	13mm	18mm	24mm	34mm	45mm
110	12mm	14mm	19mm	25mm	35mm	46mm
120	12mm	14mm	20mm	25mm	37mm	48mm
130	12mm	14mm	20mm	26mm	38mm	49mm
140	12mm	15mm	21mm	27mm	39mm	51mm
150	12mm	15mm	21mm	27mm	39mm	52mm
160	12mm	15mm	22mm	28mm	40mm	53mm
170	12mm	16mm	22mm	28mm	41mm	54mm
180	12mm	16mm	22mm	29mm	42mm	55mm
190	12mm	16mm	23mm	29mm	42mm	56mm
200	12mm	16mm	23mm	30mm	43mm	56mm
210	12mm	17mm	23mm	30mm	44mm	57mm
220	12mm	17mm	24mm	30mm	44mm	58mm
230	12mm	17mm	24mm	31mm	45mm	58mm
240	12mm	17mm	24mm	31mm	45mm	59mm
250	12mm	17mm	24mm	31mm	45mm	59mm
260	12mm	17mm	25mm	32mm	46mm	60mm
270	12mm	18mm	25mm	32mm	46mm	60mm
280	12mm	18mm	25mm	32mm	46mm	61mm
290	12mm	18mm	25mm	32mm	47mm	61mm
300	12mm	18mm	25mm	33mm	47mm	62mm
310	12mm	18mm	25mm	33mm	47mm	62mm
320	12mm	18mm	26mm	33mm	48mm	62mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 6. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 600°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	17mm	22mm
40	12mm	12mm	12mm	14mm	20mm	26mm
50	12mm	12mm	12mm	16mm	23mm	30mm
60	12mm	12mm	13mm	17mm	25mm	33mm
70	12mm	12mm	14mm	19mm	27mm	36mm
80	12mm	12mm	15mm	20mm	29mm	38mm
90	12mm	12mm	16mm	21mm	31mm	40mm
100	12mm	12mm	17mm	22mm	32mm	42mm
110	12mm	12mm	18mm	23mm	33mm	44mm
120	12mm	13mm	18mm	23mm	34mm	45mm
130	12mm	13mm	19mm	24mm	35mm	46mm
140	12mm	13mm	19mm	25mm	36mm	47mm
150	12mm	14mm	19mm	25mm	37mm	48mm
160	12mm	14mm	20mm	26mm	38mm	49mm
170	12mm	14mm	20mm	26mm	38mm	50mm
180	12mm	14mm	21mm	27mm	39mm	51mm
190	12mm	15mm	21mm	27mm	39mm	52mm
200	12mm	15mm	21mm	27mm	40mm	52mm
210	12mm	15mm	21mm	28mm	40mm	53mm
220	12mm	15mm	22mm	28mm	41mm	54mm
230	12mm	15mm	22mm	28mm	41mm	54mm
240	12mm	15mm	22mm	29mm	42mm	55mm
250	12mm	16mm	22mm	29mm	42mm	55mm
260	12mm	16mm	22mm	29mm	42mm	56mm
270	12mm	16mm	23mm	29mm	43mm	56mm
280	12mm	16mm	23mm	29mm	43mm	57mm
290	12mm	16mm	23mm	30mm	43mm	57mm
300	12mm	16mm	23mm	30mm	44mm	57mm
310	12mm	16mm	23mm	30mm	44mm	58mm
320	12mm	16mm	23mm	30mm	44mm	58mm



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 7. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 620°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	16mm	20mm
40	12mm	12mm	12mm	13mm	19mm	25mm
50	12mm	12mm	12mm	15mm	22mm	28mm
60	12mm	12mm	13mm	16mm	24mm	31mm
70	12mm	12mm	14mm	18mm	26mm	34mm
80	12mm	12mm	15mm	19mm	28mm	36mm
90	12mm	12mm	15mm	20mm	29mm	38mm
100	12mm	12mm	16mm	21mm	31mm	40mm
110	12mm	12mm	17mm	22mm	32mm	42mm
120	12mm	12mm	17mm	23mm	33mm	43mm
130	12mm	13mm	18mm	23mm	34mm	44mm
140	12mm	13mm	18mm	24mm	35mm	46mm
150	12mm	13mm	19mm	24mm	35mm	47mm
160	12mm	13mm	19mm	25mm	36mm	48mm
170	12mm	14mm	19mm	25mm	37mm	48mm
180	12mm	14mm	20mm	26mm	37mm	49mm
190	12mm	14mm	20mm	26mm	38mm	50mm
200	12mm	14mm	20mm	26mm	39mm	51mm
210	12mm	14mm	21mm	27mm	39mm	51mm
220	12mm	15mm	21mm	27mm	39mm	52mm
230	12mm	15mm	21mm	27mm	40mm	52mm
240	12mm	15mm	21mm	28mm	40mm	53mm
250	12mm	15mm	21mm	28mm	41mm	53mm
260	12mm	15mm	22mm	28mm	41mm	54mm
270	12mm	15mm	22mm	28mm	41mm	54mm
280	12mm	15mm	22mm	29mm	42mm	55mm
290	12mm	16mm	22mm	29mm	42mm	55mm
300	12mm	16mm	22mm	29mm	42mm	56mm
310	12mm	16mm	22mm	29mm	43mm	56mm
320	12mm	16mm	23mm	29mm	43mm	56mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 8. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 650°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	15mm	20mm
40	12mm	12mm	12mm	13mm	18mm	24mm
50	12mm	12mm	12mm	14mm	21mm	28mm
60	12mm	12mm	12mm	16mm	23mm	31mm
70	12mm	12mm	13mm	17mm	25mm	33mm
80	12mm	12mm	14mm	18mm	27mm	35mm
90	12mm	12mm	15mm	19mm	28mm	37mm
100	12mm	12mm	15mm	20mm	29mm	39mm
110	12mm	12mm	16mm	21mm	31mm	40mm
120	12mm	12mm	16mm	22mm	32mm	42mm
130	12mm	12mm	17mm	22mm	33mm	43mm
140	12mm	12mm	17mm	23mm	33mm	44mm
150	12mm	12mm	18mm	23mm	34mm	45mm
160	12mm	13mm	18mm	24mm	35mm	46mm
170	12mm	13mm	18mm	24mm	35mm	47mm
180	12mm	13mm	19mm	24mm	36mm	47mm
190	12mm	13mm	19mm	25mm	37mm	48mm
200	12mm	13mm	19mm	25mm	37mm	49mm
210	12mm	14mm	20mm	25mm	37mm	49mm
220	12mm	14mm	20mm	26mm	38mm	50mm
230	12mm	14mm	20mm	26mm	38mm	51mm
240	12mm	14mm	20mm	26mm	39mm	51mm
250	12mm	14mm	20mm	27mm	39mm	51mm
260	12mm	14mm	20mm	27mm	39mm	52mm
270	12mm	14mm	21mm	27mm	40mm	52mm
280	12mm	14mm	21mm	27mm	40mm	53mm
290	12mm	14mm	21mm	27mm	40mm	53mm
300	12mm	15mm	21mm	28mm	40mm	53mm
310	12mm	15mm	21mm	28mm	41mm	54mm
320	12mm	15mm	21mm	28mm	41mm	54mm



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 9. Required thickness of CAFCO® 300 when protecting I-section beams and columns, critical temperature 700°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	13mm	18mm
40	12mm	12mm	12mm	12mm	16mm	22mm
50	12mm	12mm	12mm	12mm	19mm	25mm
60	12mm	12mm	12mm	14mm	21mm	28mm
70	12mm	12mm	12mm	15mm	23mm	31mm
80	12mm	12mm	12mm	16mm	24mm	33mm
90	12mm	12mm	12mm	17mm	26mm	35mm
100	12mm	12mm	13mm	18mm	27mm	36mm
110	12mm	12mm	14mm	18mm	28mm	38mm
120	12mm	12mm	14mm	19mm	29mm	39mm
130	12mm	12mm	15mm	20mm	30mm	41mm
140	12mm	12mm	15mm	20mm	31mm	42mm
150	12mm	12mm	15mm	21mm	32mm	43mm
160	12mm	12mm	16mm	21mm	33mm	44mm
170	12mm	12mm	16mm	22mm	33mm	45mm
180	12mm	12mm	16mm	22mm	34mm	45mm
190	12mm	12mm	17mm	22mm	34mm	46mm
200	12mm	12mm	17mm	23mm	35mm	47mm
210	12mm	12mm	17mm	23mm	35mm	48mm
220	12mm	12mm	17mm	23mm	36mm	48mm
230	12mm	12mm	17mm	24mm	36mm	49mm
240	12mm	12mm	18mm	24mm	37mm	49mm
250	12mm	12mm	18mm	24mm	37mm	50mm
260	12mm	12mm	18mm	24mm	37mm	50mm
270	12mm	12mm	18mm	25mm	38mm	51mm
280	12mm	12mm	18mm	25mm	38mm	51mm
290	12mm	12mm	18mm	25mm	38mm	51mm
300	12mm	12mm	18mm	25mm	39mm	52mm
310	12mm	12mm	19mm	25mm	39mm	52mm
320	12mm	12mm	19mm	26mm	39mm	53mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 10. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 350°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	15mm	19mm	28mm	36mm
40	12mm	13mm	18mm	23mm	33mm	44mm
50	12mm	14mm	20mm	26mm	38mm	50mm
60	12mm	16mm	22mm	29mm	42mm	55mm
70	12mm	17mm	24mm	32mm	46mm	60mm
80	12mm	18mm	26mm	34mm	49mm	64mm
90	12mm	19mm	28mm	36mm	52mm	68mm
100	12mm	20mm	29mm	37mm	54mm	71mm
110	12mm	21mm	30mm	39mm	57mm	-
120	13mm	22mm	31mm	41mm	59mm	-
130	13mm	23mm	32mm	42mm	61mm	-
140	14mm	24mm	33mm	43mm	63mm	-
150	14mm	24mm	34mm	45mm	65mm	-
160	14mm	25mm	35mm	46mm	66mm	-
170	15mm	25mm	36mm	47mm	68mm	-
180	15mm	26mm	37mm	48mm	70mm	-
190	15mm	27mm	38mm	49mm	71mm	-
200	16mm	27mm	39mm	50mm	-	-
210	16mm	28mm	39mm	51mm	-	-
220	16mm	28mm	40mm	52mm	-	-
230	17mm	29mm	41mm	53mm	-	-
240	17mm	29mm	41mm	54mm	-	-
250	17mm	30mm	42mm	54mm	-	-
260	17mm	30mm	42mm	55mm	-	-
270	17mm	30mm	43mm	55mm	-	-
280	18mm	30mm	43mm	55mm	-	-
290	18mm	30mm	43mm	56mm	-	-
300	18mm	31mm	43mm	56mm	-	-
310	18mm	31mm	44mm	56mm	-	-



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 11. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 400°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	13mm	16mm	23mm	30mm
40	12mm	12mm	16mm	20mm	28mm	36mm
50	12mm	13mm	18mm	23mm	32mm	42mm
60	12mm	15mm	20mm	25mm	36mm	46mm
70	12mm	16mm	22mm	27mm	39mm	50mm
80	12mm	17mm	23mm	29mm	42mm	54mm
90	12mm	18mm	24mm	31mm	44mm	57mm
100	12mm	19mm	26mm	33mm	47mm	60mm
110	12mm	20mm	27mm	34mm	49mm	63mm
120	13mm	20mm	28mm	36mm	51mm	66mm
130	13mm	21mm	29mm	37mm	53mm	68mm
140	14mm	22mm	30mm	38mm	54mm	70mm
150	14mm	23mm	31mm	39mm	56mm	-
160	15mm	23mm	32mm	40mm	57mm	-
170	15mm	24mm	33mm	41mm	59mm	-
180	15mm	24mm	33mm	42mm	60mm	-
190	16mm	25mm	34mm	43mm	62mm	-
200	16mm	25mm	35mm	44mm	63mm	-
210	16mm	26mm	35mm	45mm	64mm	-
220	17mm	26mm	36mm	46mm	65mm	-
230	17mm	27mm	37mm	47mm	67mm	-
240	17mm	27mm	37mm	48mm	68mm	-
250	17mm	28mm	38mm	48mm	69mm	-
260	18mm	28mm	38mm	49mm	69mm	-
270	18mm	28mm	39mm	49mm	70mm	-
280	18mm	28mm	39mm	49mm	70mm	-
290	18mm	29mm	39mm	50mm	71mm	-
300	18mm	29mm	39mm	50mm	71mm	-
310	18mm	29mm	40mm	50mm	72mm	-

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 12. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 450°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	15mm	21mm	28mm
40	12mm	12mm	14mm	18mm	26mm	34mm
50	12mm	12mm	17mm	21mm	30mm	39mm
60	12mm	13mm	18mm	23mm	33mm	43mm
70	12mm	15mm	20mm	25mm	36mm	47mm
80	12mm	16mm	21mm	27mm	39mm	51mm
90	12mm	17mm	23mm	29mm	41mm	54mm
100	12mm	17mm	24mm	31mm	44mm	57mm
110	12mm	18mm	25mm	32mm	46mm	59mm
120	12mm	19mm	26mm	33mm	48mm	62mm
130	12mm	20mm	27mm	34mm	49mm	64mm
140	13mm	20mm	28mm	36mm	51mm	66mm
150	13mm	21mm	29mm	37mm	52mm	68mm
160	13mm	21mm	30mm	38mm	54mm	70mm
170	14mm	22mm	30mm	39mm	55mm	72mm
180	14mm	23mm	31mm	40mm	57mm	-
190	14mm	23mm	32mm	40mm	58mm	-
200	15mm	24mm	32mm	41mm	59mm	-
210	15mm	24mm	33mm	42mm	60mm	-
220	15mm	24mm	34mm	43mm	61mm	-
230	15mm	25mm	34mm	44mm	63mm	-
240	16mm	25mm	35mm	45mm	64mm	-
250	16mm	26mm	35mm	45mm	65mm	-
260	16mm	26mm	36mm	46mm	65mm	-
270	16mm	26mm	36mm	46mm	66mm	-
280	16mm	26mm	36mm	46mm	66mm	-
290	16mm	26mm	37mm	47mm	67mm	-
300	17mm	27mm	37mm	47mm	67mm	-
310	17mm	27mm	37mm	47mm	67mm	-



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 13. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 500°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	14mm	20mm	25mm
40	12mm	12mm	13mm	17mm	24mm	31mm
50	12mm	12mm	15mm	19mm	27mm	36mm
60	12mm	12mm	17mm	21mm	31mm	40mm
70	12mm	13mm	18mm	23mm	33mm	44mm
80	12mm	14mm	20mm	25mm	36mm	47mm
90	12mm	15mm	21mm	27mm	38mm	50mm
100	12mm	16mm	22mm	28mm	40mm	53mm
110	12mm	17mm	23mm	29mm	42mm	55mm
120	12mm	17mm	24mm	31mm	44mm	58mm
130	12mm	18mm	25mm	32mm	46mm	60mm
140	12mm	18mm	26mm	33mm	47mm	62mm
150	12mm	19mm	26mm	34mm	49mm	64mm
160	12mm	20mm	27mm	35mm	50mm	65mm
170	12mm	20mm	28mm	36mm	52mm	67mm
180	13mm	21mm	29mm	37mm	53mm	69mm
190	13mm	21mm	29mm	38mm	54mm	71mm
200	13mm	21mm	30mm	38mm	55mm	72mm
210	13mm	22mm	31mm	39mm	56mm	-
220	14mm	22mm	31mm	40mm	57mm	-
230	14mm	23mm	32mm	41mm	59mm	-
240	14mm	23mm	32mm	41mm	60mm	-
250	14mm	24mm	33mm	42mm	61mm	-
260	14mm	24mm	33mm	42mm	61mm	-
270	15mm	24mm	33mm	43mm	62mm	-
280	15mm	24mm	34mm	43mm	62mm	-
290	15mm	24mm	34mm	43mm	62mm	-
300	15mm	24mm	34mm	44mm	63mm	-
310	15mm	25mm	34mm	44mm	63mm	-

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 14. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 550°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	13mm	18mm	24mm
40	12mm	12mm	12mm	15mm	22mm	29mm
50	12mm	12mm	14mm	18mm	25mm	33mm
60	12mm	12mm	15mm	20mm	28mm	37mm
70	12mm	12mm	17mm	22mm	31mm	41mm
80	12mm	13mm	18mm	23mm	33mm	44mm
90	12mm	14mm	19mm	25mm	36mm	47mm
100	12mm	14mm	20mm	26mm	38mm	49mm
110	12mm	15mm	21mm	27mm	39mm	51mm
120	12mm	16mm	22mm	28mm	41mm	54mm
130	12mm	16mm	23mm	29mm	43mm	56mm
140	12mm	17mm	24mm	30mm	44mm	58mm
150	12mm	17mm	24mm	31mm	45mm	60mm
160	12mm	18mm	25mm	32mm	47mm	61mm
170	12mm	18mm	26mm	33mm	48mm	63mm
180	12mm	19mm	26mm	34mm	49mm	64mm
190	12mm	19mm	27mm	35mm	50mm	66mm
200	12mm	20mm	28mm	36mm	52mm	67mm
210	12mm	20mm	28mm	36mm	53mm	69mm
220	12mm	20mm	29mm	37mm	54mm	70mm
230	12mm	21mm	29mm	38mm	55mm	72mm
240	13mm	21mm	30mm	38mm	56mm	-
250	13mm	22mm	30mm	39mm	57mm	-
260	13mm	22mm	31mm	39mm	57mm	-
270	13mm	22mm	31mm	40mm	58mm	-
280	13mm	22mm	31mm	40mm	58mm	-
290	13mm	22mm	31mm	40mm	58mm	-
300	13mm	22mm	31mm	41mm	59mm	-
310	13mm	22mm	32mm	41mm	59mm	-



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 15. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 600°C

AV up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	17mm	22mm
40	12mm	12mm	12mm	14mm	21mm	27mm
50	12mm	12mm	13mm	17mm	24mm	31mm
60	12mm	12mm	14mm	18mm	27mm	35mm
70	12mm	12mm	15mm	20mm	29mm	38mm
80	12mm	12mm	17mm	22mm	31mm	41mm
90	12mm	12mm	18mm	23mm	33mm	44mm
100	12mm	13mm	19mm	24mm	35mm	46mm
110	12mm	14mm	19mm	25mm	37mm	48mm
120	12mm	14mm	20mm	26mm	38mm	50mm
130	12mm	15mm	21mm	27mm	40mm	52mm
140	12mm	15mm	22mm	28mm	41mm	54mm
150	12mm	16mm	22mm	29mm	42mm	56mm
160	12mm	16mm	23mm	30mm	44mm	57mm
170	12mm	17mm	24mm	31mm	45mm	59mm
180	12mm	17mm	24mm	31mm	46mm	60mm
190	12mm	17mm	25mm	32mm	47mm	62mm
200	12mm	18mm	25mm	33mm	48mm	63mm
210	12mm	18mm	26mm	33mm	49mm	64mm
220	12mm	18mm	26mm	34mm	50mm	65mm
230	12mm	19mm	27mm	35mm	51mm	67mm
240	12mm	19mm	27mm	35mm	52mm	68mm
250	12mm	19mm	28mm	36mm	52mm	69mm
260	12mm	20mm	28mm	36mm	53mm	70mm
270	12mm	20mm	28mm	36mm	53mm	70mm
280	12mm	20mm	28mm	37mm	54mm	71mm
290	12mm	20mm	28mm	37mm	54mm	71mm
300	12mm	20mm	29mm	37mm	54mm	72mm
310	12mm	20mm	29mm	37mm	55mm	72mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 16. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 620°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	16mm	21mm
40	12mm	12mm	12mm	14mm	20mm	26mm
50	12mm	12mm	12mm	16mm	23mm	30mm
60	12mm	12mm	13mm	17mm	25mm	33mm
70	12mm	12mm	15mm	19mm	28mm	36mm
80	12mm	12mm	16mm	21mm	30mm	39mm
90	12mm	12mm	17mm	22mm	32mm	42mm
100	12mm	12mm	18mm	23mm	34mm	44mm
110	12mm	13mm	19mm	24mm	35mm	46mm
120	12mm	14mm	19mm	25mm	37mm	48mm
130	12mm	14mm	20mm	26mm	38mm	50mm
140	12mm	15mm	21mm	27mm	39mm	52mm
150	12mm	15mm	21mm	28mm	41mm	54mm
160	12mm	16mm	22mm	29mm	42mm	55mm
170	12mm	16mm	23mm	29mm	43mm	57mm
180	12mm	16mm	23mm	30mm	44mm	58mm
190	12mm	17mm	24mm	31mm	45mm	59mm
200	12mm	17mm	24mm	32mm	46mm	61mm
210	12mm	17mm	25mm	32mm	47mm	62mm
220	12mm	18mm	25mm	33mm	48mm	63mm
230	12mm	18mm	26mm	34mm	49mm	64mm
240	12mm	18mm	26mm	34mm	50mm	66mm
250	12mm	19mm	27mm	35mm	51mm	67mm
260	12mm	19mm	27mm	35mm	51mm	67mm
270	12mm	19mm	27mm	35mm	52mm	68mm
280	12mm	19mm	27mm	36mm	52mm	68mm
290	12mm	19mm	28mm	36mm	52mm	69mm
300	12mm	19mm	28mm	36mm	53mm	69mm
310	12mm	20mm	28mm	36mm	53mm	70mm



CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 17. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 650°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	16mm	21mm
40	12mm	12mm	12mm	13mm	19mm	25mm
50	12mm	12mm	12mm	15mm	22mm	29mm
60	12mm	12mm	13mm	17mm	25mm	32mm
70	12mm	12mm	14mm	18mm	27mm	35mm
80	12mm	12mm	15mm	20mm	29mm	38mm
90	12mm	12mm	16mm	21mm	31mm	40mm
100	12mm	12mm	17mm	22mm	32mm	43mm
110	12mm	12mm	18mm	23mm	34mm	45mm
120	12mm	13mm	18mm	24mm	35mm	47mm
130	12mm	13mm	19mm	25mm	37mm	48mm
140	12mm	14mm	20mm	26mm	38mm	50mm
150	12mm	14mm	20mm	27mm	39mm	52mm
160	12mm	15mm	21mm	27mm	40mm	53mm
170	12mm	15mm	22mm	28mm	41mm	55mm
180	12mm	15mm	22mm	29mm	42mm	56mm
190	12mm	16mm	23mm	29mm	43mm	57mm
200	12mm	16mm	23mm	30mm	44mm	59mm
210	12mm	16mm	24mm	31mm	45mm	60mm
220	12mm	17mm	24mm	31mm	46mm	61mm
230	12mm	17mm	24mm	32mm	47mm	62mm
240	12mm	17mm	25mm	33mm	48mm	63mm
250	12mm	17mm	25mm	33mm	49mm	64mm
260	12mm	18mm	25mm	33mm	49mm	65mm
270	12mm	18mm	26mm	34mm	49mm	65mm
280	12mm	18mm	26mm	34mm	50mm	66mm
290	12mm	18mm	26mm	34mm	50mm	66mm
300	12mm	18mm	26mm	34mm	50mm	67mm
310	12mm	18mm	26mm	35mm	51mm	67mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

TABLE 18. Required thickness of CAFCO® 300 when protecting hollow section beams and columns, critical temperature 700°C

A/V up to	Dry thickness for the required fire resistance					
	30 min	60 min	90 min	120 min	180 min	240 min
30	12mm	12mm	12mm	12mm	14mm	19mm
40	12mm	12mm	12mm	12mm	17mm	23mm
50	12mm	12mm	12mm	13mm	20mm	27mm
60	12mm	12mm	12mm	15mm	22mm	30mm
70	12mm	12mm	12mm	16mm	24mm	33mm
80	12mm	12mm	13mm	17mm	26mm	35mm
90	12mm	12mm	14mm	18mm	28mm	38mm
100	12mm	12mm	14mm	19mm	30mm	40mm
110	12mm	12mm	15mm	20mm	31mm	42mm
120	12mm	12mm	16mm	21mm	33mm	44mm
130	12mm	12mm	16mm	22mm	34mm	46mm
140	12mm	12mm	17mm	23mm	35mm	48mm
150	12mm	12mm	18mm	24mm	37mm	49mm
160	12mm	12mm	18mm	25mm	38mm	51mm
170	12mm	12mm	19mm	25mm	39mm	52mm
180	12mm	12mm	19mm	26mm	40mm	54mm
190	12mm	13mm	20mm	27mm	41mm	55mm
200	12mm	13mm	20mm	27mm	42mm	56mm
210	12mm	13mm	20mm	28mm	43mm	57mm
220	12mm	13mm	21mm	28mm	44mm	59mm
230	12mm	14mm	21mm	29mm	44mm	60mm
240	12mm	14mm	22mm	30mm	45mm	61mm
250	12mm	14mm	22mm	30mm	46mm	62mm
260	12mm	14mm	22mm	30mm	47mm	63mm
270	12mm	14mm	22mm	31mm	47mm	63mm
280	12mm	14mm	23mm	31mm	47mm	64mm
290	12mm	15mm	23mm	31mm	48mm	64mm
300	12mm	15mm	23mm	31mm	48mm	65mm
310	12mm	15mm	23mm	32mm	48mm	65mm

CAFCO® 300

Vermiculite Gypsum Based Wet Mix Spray

PREPARATION

Typical substrates	Unprimed and primed steel, concrete structural frames and return air plenums
Substrate preparation	The substrate shall be clean, dry and free from dust, loose millscale, loose rust, oil and any other condition preventing good adhesion Steelwork and concrete substrates should be covered with Cafco BONDSEAL®, an adhesive/keycoat, prior to the application of CAFCO® 300

APPLICATION

Initial steps	Application of CAFCO® 300 must be carried out by an applicator recognised by Promat
Methods	Mix CAFCO® 300 with potable water in a suitable mixer and apply by a spraying machine approved by Promat CAFCO® 300 may also be float finished using conventional hand tools or spray textured
Limitations	CAFCO® 300 may be applied when the substrate and air temperatures are at least 4°C and rising, and must be maintained for 24 hours before, during and 24 hours after application. Maximum substrate and air temperature is 45°C Substrate temperature should be at least 2°C above dew point temperature

PACKAGING

20kg bags.

STORAGE

Protect from frost, excessive heat (above 45°C) and strong radiant sunlight.

SHELF LIFE

Maximum 6 months.

ENVIRONMENTAL

Do not discharge into drains, watercourses or soil.

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