



GENERAL DESCRIPTION:

The SD240GS Horizontal fire protective smoke curtain is a horizontal-deploying system composed of a glass-fiber fabric in a Panama weave rolled on a round steel tube in a fire rated assembly. The curtain remains retracted by a low voltage system until activated by fire alarm or smoke alarm at which point it deploys and creates a smoke and fire barrier.

- The system includes a single barrel curtain assembly with a 0.05 in. thick galvanized steel head box and a "receiver" galvanized steel headbox.
- A 24 V motor control circuit (MCC) housed within a 5" x 9" x 2" steel box mounted at the head box or remotely. NFPA 70 compliant tubular DC low voltage motor interfaced with Group Control Panel (GCP) and a suitably weighted bottom bar.
- The fabric curtain manufactured from 660g/m² stainless steel, wire reinforced, woven glass fiber fabric coated on each side with silver polyurethane.
- Removable fire rated cover plates incorporated to allow access to curtain rollers.
- Curtain passes through fire rated galvanized steel auxiliary rails (side guides) that can be powder coated or prime coated in finish.

STANDARDS:

The SD240GS Horizontal is certified for quality by ISO 9000, meets and exceeds the requirements of:

- IIBC 715.4 C Smoke Door Assembly
- NFPA 80 Chapter 20:2007
- NFPA 105 Compliance
- NFPA 101 Compliance

PERFORMANCE:

- 3-hour fire rated at 1800°F
- By engineering judgment



FABRIC:

The C41000WK fabric is fabricated from stainless steel, wire reinforced, woven glass fiber fabric coated on each side with silver polyurethane. The fabric is manufactured & tested to withstand 1800°F for a period of 3 hrs. The curtain fabric is manufactured from a unique “Leinwand” weave which offers an even surface and allows a tighter interlacing of the fabric edges. The tensile strength of Leinwand weave fabric is 10% greater than other fabrics due to constant thread tension.



FABRIC		
Style: C41000W		Rating for 1832°F for 180 minutes
Test Characteristics	Unit	Data
Weight of fab	g/m ²	550 ± 5%
Width	in.	39.4 ± 1%
Thickness	in.	0.017 ± 5%
Weave		Leinwand
Threads /warp	Per cm.	16.0 ± 3%
Fineness /warp	Tex	EC9 - 68x2 ± 5%
Tensile strength /weft	Lbf/ft	6167.0 ± 5%
Threads /warp	Per cm.	10.0 ± 3%
Fineness /weft	Tex	EC9 - 68x2 ± 5%
Tensile strength /weft	Lbf/ft	3426.1 ± 5%
Coating Quantity	G/m ²	35 ± 5%
One side/ Both sides	1/2	2
Application temp.	°F	932 (Glass)

GROUP CONTROL PANEL (GCP):

The curtain deployment mechanism is directly synced and integrated in the fire alarm emergency systems.

When an alarm signal is detected, the GCP will automatically trigger all the curtain systems to deploy in a controlled descent under gravity. Each GCP controls a maximum of 5 Motor Control Circuit (MCC). In normal operating conditions the GCP provide a 24v AC supply the MCC to keep the curtains in retracted condition. Should smoke be detected, the fire alarm control system will signal the GCP. The latter will open the circuit loop, remove the voltage and the curtains will deploy under gravity at a controlled speed.

MOTOR CONTROL CIRCUIT SPECIFICATION (MCC):

- Nominal Voltage= 24 V
- Nominal speed = 3100 rpm
- Dimensions: 145 mm x 250 mm x 50 mm
- Continuous Torque : 1400 Ncm
- Efficiency : 0.70
- Ratio : 100.00
- Shaft Load Capacity – Axial : 150 N
- Shaft Load Capacity – Radial : 250 N
- A dynamic braking system housed in the motor control circuit



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