



Commercial Heavy 430FR is a high quality knitted flame retardant shade fabric designed for tension structures, awnings and shade sails specifically for commercial architectural applications; supplied in bulk rolls.

- Strong HDPE 100% recyclable fabric won't rot or absorb moisture.
- Stentered (heat-set) to reduce shrinkage and for ease of fabrication.
- Certified to California State Fire Marshall CSFM 1237.1 and complies with NFPA701 across all colour variants.
- 12-year UV degradation warranty on fabric.
- 100% Lead and Phthalate free
- Engineered in Australia to meet the harsh climate

FABRIC PROPERTIES

(AS 2001.2.13) mass per unit

Nominal fabric mass	430 gsm ± 20
Approximate thickness	1.6 mm

ROLL SPECIFICATIONS

Nominal width:	3.0m (unfolded)
Length:	40m
Approx. roll weight:	54 kg
Approx. roll diameter:	0.30 m
Core diameter:	76 mm

USAGE INSTRUCTIONS

Do not use against flames.
Contact with organic solvents, halogens or highly acidic substances may reduce the service life of the fabric and void the warranty.

Biaxial elastic material properties available on request.

SUGGESTED SPECIFICATION

Shade cloth fabric shall be compliant to Australian standard AS 4174:2018 and shall be GALE Commercial Heavy 430 FR knitted with HDPE monofilament offering a UVE Protection Category of "Effective".

FLAMMABILITY

Part 2 & 3 certificates available on request

(AS 1530.2) Part 2 - Flammability of Materials

Flammability Index (Range 0-100)	1
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(AS 1530.3) Part 3 - Flammability of Materials

Ignitability Index (Range 0-20)	13
Spread of Flame Index (Range 0-10)	8
Heat Evolved Index (Range 0-10)	5
Smoke Developed Index (Range 0-10)	7

PERFORMANCE

(AS 2001.2.3.1-2001) Maximum Force and Elongation - Strip Method

Maximum Force – Warp (Mean)	1400 N/50mm
Elongation at Maximum Force – Warp (Mean)	70 %
Maximum Force – Weft (Mean)	1300 N/50mm
Elongation at Maximum Force (Mean)	144 %

(AS 2001.2.3.2-2001) Breaking Force - Grab Test

Breaking Force – Warp (Mean)	1600 N
Breaking Force – Weft (Mean)	1800 N

(AS 2001.2.10-1986) Tear Resistance – Wing Rip Method

Wing Tear – Warp (mean)	255 N
Wing Tear – Weft (mean)	272 N

(AS 2001.2.4) Bursting Pressure – Hydraulic Diaphragm Method

Bursting Pressure (mean)	3200 kPa
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(AS 2001.2.19-1988) Bursting Force – Ball Burst Method

Bursting Force (mean)	1955 N
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(AS 4174:2018) Shade Protection Fabric Performance

Colour	Cover Factor	Shade Factor	UV-Vis Trans %	UVR Trans %	UVR Block %	UVE %	Protection Category
Aquatic Blue	86	85.7	14.3	14.1	85.9	85	Effective
Black	87	87.5	12.5	12.5	87.5	87	Effective
Bright Green	85	84.1	15.9	14.6	85.4	84	Effective
Brunswick Green	84	84.5	15.5	15.5	84.5	84	Effective
Charcoal	86	86.8	13.2	13.1	86.9	86	Effective
Deep Ochre	87	87.0	13.0	12.9	87.1	86	Effective
Desert Sand	85	79.8	20.2	14.7	85.3	84	Effective
Emerald	86	86.2	13.8	13.5	86.5	86	Effective
Natural	87	75.9	24.1	12.7	87.3	87	Effective
Navy Blue	87	87.4	12.6	12.5	87.5	87	Effective
Orange	85	75.5	24.5	14.8	85.2	84	Effective
Red	86	75.5	24.5	13.8	86.2	86	Effective
Royal Purple	87	86.8	13.2	12.5	87.5	87	Effective
Steel Grey	86	85.9	14.1	13.3	86.7	86	Effective
White	86	71.5	28.5	13.8	86.2	86	Effective
Yellow	86	74.1	25.9	13.3	86.7	86	Effective



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Commercial Heavy 430 FR is GALE Pacific's premiere 100% round monofilament HDPE shade fabric.

Meeting the most stringent flame retardant specifications, our patented, intertwining knit pattern gives Heavy 430 FR fabric superior dimensional stability for easy fabrication and minimal maintenance.

- A heavy-weight fabric engineered to withstand the demands of small to large span structures delivers a visually appealing look regardless of size
- Patented intertwining knit pattern, with 100% monofilament yarns creates the ultimate combination of tensile strength and biaxial stability for minimal maintenance and lasting performance
- Available in 16 vibrant colors to meet design requirements
- Each color individually tested and meets the most stringent FR certification criteria
- Backed by a full 12-year warranty against UV degradation and designed to withstand extreme weather conditions across the globe
- 100% Lead and Phthalate free

FLAMMABILITY

CSFM Title 19 1237.1

NFPA 701 Test Methods 1 & 2

ASTM E84 19B Class A

Each color individually tested and passes all certification criteria for above. Test results available upon request.

NFP92-503 Class M1 in process

FABRIC PROPERTIES

AS 2001.2.13

Mass per unit

Nominal fabric mass 430 gsm ± 20; 12.7 oz./yd²

Approximate thickness 0.06 in. / 1.6mm

ROLL SPECIFICATIONS

Nominal width: 9 ft. 10 in. / 3.0m (unfolded)

Length: 131 ft. 3 in. / 40m

Approx. roll weight: 119 lbs / 54 kg

Approx. roll diameter: 1 ft. / 0.30 m

Core diameter: 3 in. / 76 mm

USAGE INSTRUCTIONS

Do not use against flames. Contact with organic solvents, halogens or highly acidic substances may reduce the service life of the fabric and void the warranty. Biaxial elastic material properties available on request.

SUGGESTED SPECIFICATION

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PERFORMANCE

ASTM D5034

Tensile Strength and Elongation

Maximum Force – Warp (Mean)	282 lbf
Elongation at Maximum Force – Warp (Mean)	56 %
Maximum Force – Weft (Mean)	362 lbf
Elongation at Maximum Force (Mean)	106 %

ASTM D2261

Tearing Strength – Tongue (Single Rip)

Mean Force – Warp	55.8 lbf
Mean Force – Weft	48.7 lbf

ASTM D6797

Bursting Strength – Ball Burst (Constant Rate of Extension)

Mean Force	376 lbf
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AS 4174:2018

Shade Protection Fabric Performance

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All test data available upon request



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