



PHIFER

INCORPORATED

31 May 2018

DRAPER, INC.

Sent Via E-mail: jessi.wright@DraperInc.com

Re: Flame Retardance Certificate

PHIFER INCORPORATED certifies that the materials described below manufactured in Tuscaloosa, Alabama, U.S.A., and furnished by our firm are in compliance with flammability requirements* as listed below:

Product Group A: SheerWeave 5000 Fabrics woven from 100% FR Vinyl coated polyester in the following constructions:

42 X 20 (0.018" Warp & 0.018" Filling): P57, P58, P59, P60, Q43

42 X 25 (0.018" Warp & 0.018" Filling): P61

1. Flammability per California Administrative Code, Title 19, Public Safety, Section 1237.1, Flame Resistance Small Scale Test. (Registration Number F-44210.)
2. National Fire Protection Association, NFPA No. 101, "Life Safety Code", Class "A" rating. (Tested in accordance to ASTM E84-10b.)

Flame Spread Index = 10 Smoke Developed Value = 200
3. International Building Code (IBC), Section 803.1.1, Class A (Tested in accordance to ASTM E84.)
4. NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test 1, Small Scale).
5. NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test Method # 2, Large Scale).
6. California Technical Bulletin 117-2013, Section 1, Cover Fabric Test.
7. BS EN ISO 15025:2002 - Protective clothing - Protection against heat and flame - Method of test for limited flame spread (Procedure A - Surface Ignition); as cited by BS 5867-2:2008 - British Standard Specification for Fabrics for curtains, drapes and window blinds; Part 2: Type "B" Performance Requirements.



Product Group B: SheerWeave 5000 Fabrics woven from 100% Vinyl coated polyester in the following constructions:

42 X 20 (0.018" Warp & 0.018" Filling): P67, P68, P69, P70, Q82, Q87, Q91, Q92, Q93, QB9, QC1, QC2, QC3, QC4, QC5, QC6, QC7, QC8, QE1, QE2, QE4, QE5, QE6, QE7, QE8, QM3, QM4, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R96, S49, S72, S73, S86, S90, S91, T29, U13, U14, U15, U16, U18, U19, U24, U25, U26, U28, U29, U36, U39, U40, U42, U43, U54, U55, U72, U73, U74, U75, U76, U77, U78, U79, V56, V90,

42 X 20 (0.018" Warp & 0.013" / 0.018" Filling Yarn in a 1:1 ratio): U17, U20, U27, U38, V89, V91, V92,

42 X 20 (0.018" Warp & 0.013" Filling): P46, P49, P73, Q34, Q35, Q36, Q37, Q38, Q39, Q40, S89, T11, T85, T86, T87, T88, T89, U04, U05, U21, U22, U23, U30, U31, U41, U45, U46, VA8

42 X 22 (0.018" Warp & 0.018" Filling): T21

42 X 25 (0.018" Warp & 0.018" Filling): Q61, Q62, Q63, Q64, Q65, Q76, QM5, QM6, QM7, QM8

42 X 25 (0.018" Warp & 0.013" Filling): T80, T81, T82, T83, T84

42 X 25 (0.013" Warp & 0.018" Filling): S39, S40, S41, S42, S43

1. National Fire Protection Association, NFPA No. 101, "Life Safety Code", Class "A" rating. (Tested in accordance to ASTM E84-10b.)
Flame Spread Index = 20 Smoke Developed Value = 200
2. International Building Code (IBC), Section 803.1.1, Class A (Tested in accordance to ASTM E84.)
3. NFPA 701, Standard method of fire tests for flame propagation of Textiles and Films – 2015 Edition, Test Method #1.
4. California Technical Bulletin 117-2013, Section 1, Cover Fabric Test.

Product Group C: SheerWeave 5000 Fabrics woven from Vinyl coated polyester combined with Acrylic and/or Olefin yarns which are uncoated.

42 X 20 (0.018" Warp & 0.025" / 650 Denier Olefin Filling Yarn in a 1:1 ratio): Q49, Q50, Q51, Q46, Q74

42 X 20 (0.018" Warp & 0.018" / 650 Denier Olefin Filling Yarn in a 1:1 ratio): Q45, Q75, Q85, Q86, Q96, QM2, R94, S48, S70, S71, S74, S75, S76, S77, S78, S79, S80, S82, S81, S85, S87

42 X 20 (0.018" Warp & 0.018" / Acrylic / 0.018" / 650 Denier Olefin Filling Yarn in a 1:1:1:1 ratio): Q47

42 X 20 (0.018" Warp & 0.018" / Acrylic Filling Yarn in a 1:1 ratio): Q48

42 X 20 (0.018" Warp & 0.025" / Acrylic Filling Yarn in a 1:1 ratio): Q66

42 X 20 (0.018" Warp & 0.013" / 650 Denier Olefin Filling Yarn in a 1:1 ratio): Q73, S88

42 X 22 (0.018" Warp & 0.018" / 650 Denier Olefin Filling Yarn in a 1:1 ratio): Q88, Q89, Q90, T20



42 X 24 (0.018" Warp & 0.018" / 650 Denier Olefin Filling Yarn in a 1:1 ratio): U56

42 X 25 (0.018" Warp & 0.018" / 650 Denier Olefin Filling Yarn in a 1:1 ratio): Q53

1. National Fire Protection Association, NFPA No. 101, "Life Safety Code", Class "A" rating. (Tested in accordance to ASTM E84-10b.)

Flame Spread Index = 25 Smoke Developed Value = 200.

2. International Building Code (IBC), Section 803.1.1, Class A (Tested in accordance to ASTM E84.)
3. California Technical Bulletin 117-2013, Section 1, Cover Fabric Test.

Product Group D: SheerWeave 5000 Fabrics woven from Vinyl coated polyester combined with uncoated Olefin Novelty yarns or Olefin & Polyester Novelty yarns.

42 X 20 (0.018" Warp & 0.018" / Olefin Boucle / 0.018" / 650 Denier Olefin Filling Yarn in a 1:1:1:1 ratio): S57

42 X 20 (0.018" Warp & 2600 Denier Olefin / 650 Denier Olefin / 0.013" Filling Yarn in a 1:1:1 ratio): Q83, Q84, V57, V58

42 X 20 (0.018" Warp & 0.018" / 1200 ypp Polyester / 0.018" / 650 Denier Olefin Filling Yarn in a 1:1:1:1 ratio): S55, S56, S58, S59, S60, S61

42 X 20 (0.018" Warp & 2600 Denier Olefin / 0.018" / 650 Denier Olefin Filling Yarn in a 1:1:1 ratio): S67, S68, S69

42 X 25 (0.013" Warp & 0.018" / Olefin Boucle Filling Yarn in a 3:1 ratio): R92

1. California Technical Bulletin 117-2013, Section 1, Cover Fabric Test.
2. National Fire Protection Association, NFPA No. 101, "Life Safety Code", Class "A" rating. (Tested in accordance to ASTM E84-10b.)

Flame Spread Index = 25 Smoke Developed Value = 300

3. International Building Code (IBC), Section 803.1.1, Class A (Tested in accordance to ASTM E84.)
4. Upholstered Furniture Action Council Fabric Classification Test Method 1990 (UFAC) – Cigarette Ignition Resistance of Fabric Intended for use in Upholstered Furniture - Class I Rating.

Product Group E: SheerWeave 5000 Fabrics woven from Vinyl coated polyester combined with uncoated Polyester Novelty yarns.

42 X 20 (0.018" Warp & 0.013" / 2800 Denier Polyester Filling Yarn in a 3:1 ratio): Q94

42 X 20 (0.018" Warp & 0.018" / 1200 ypp Polyester Filling Yarn in a 1:1 ratio): R85, R86, R87, R88, R91, R80, R81, R82, R83, R84



42 X 20 (0.018" Warp & 0.013" / 1200 ypp Polyester Filling Yarn in a 1:1 ratio): R89, R90

42 X 20 (0.018" Warp & 0.013" / 3000 Denier Polyester Filling Yarn in a 3:1 ratio): Q95, QB7, QD4, QD5, QD6, QD7, S83, S84,

42 X 20 (0.018" Warp & 0.013" / 3000 Denier Polyester Filling Yarn in a 1:1 ratio): QB6, R11, R12, U10, U51, U49, U37, V88

42 X 20 (0.018" Warp & 0.018" / 3000 Denier Polyester Filling Yarn in a 3:1 ratio): QB4, QB5, QB8, QD1, QD2, QD3, QD8, QM1

42 X 20 (0.018" Warp & 0.018" / 3000 Denier Polyester in a 1:1 ratio): QF1, QF2, R95, U12, U11, U44, U47, U48, U50

42 X 20 (0.018" Warp & 0.013" / 2/150/50 Polyester Filling Yarn in a 1:1 ratio): U52, U53

42 X 25 (0.013" Warp & 1200 ypp Polyester / 0.018" Filling in a 1:1 ratio): S50, S52, S53, S62, S63, S64, S65, S66

42 X 25 (0.013" Warp & 1200 ypp Polyester / 0.013" Filling Yarn in a 1:1 ratio): R93, S51

42 X 25 (0.013" Warp & 3000 Denier Polyester / 0.013" Filling Yarn in a 1:1 ratio): S44, S46, S54

42 X 25 (0.013" Warp & 2/1500 Polyester / 0.013" Filling Yarn in a 1:1 ratio): S45, S47

1. National Fire Protection Association, NFPA No. 101, "Life Safety Code", Class "A" rating. (Tested in accordance to ASTM E84-10b.)

Flame Spread Index = 20, Smoke Developed Value = 200.

2. International Building Code (IBC), Section 803.1.1, Class A (Tested in accordance to ASTM E84.)
3. California Technical Bulletin 117-2013, Section 1, Cover Fabric Test.
4. Upholstered Furniture Action Council Fabric Classification Test Method 1990 (UFAC) – Cigarette Ignition Resistance of Fabric Intended for use in Upholstered Furniture - Class I Rating.
5. NFPA 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test 1, Small Scale)". **Applies only to SheerWeave R89 and R90.**

If you have any questions or need further information, please contact me at 1-800-633-5955 Ext. 3075.

Sincerely,

PHIFER INCORPORATED

Keith Euerle

Director of Specialty Textiles Testing and Analysis

*Testing was performed by a 3rd party certified laboratory on samples representing products listed.