### **IMPERIAL SYSTEM**

### **PORTFOLIO BROCHURE**

# HIGH-PERFORMANCE COMPOSITE FILMS AND FABRIC SOLUTIONS

Partnerships that inspire. Materials that perform.





### Versiv COATED FABRICS

The **Versiv Coated Fabrics** range is ideal for manufacturers who need highest performance of materials efficiency in challenging processes. This diverse suite enables us to develop improved solutions for unique applications.

Dimensionally stable and chemically inert, these materials offer unique performance properties such as non-stick release, low friction and dielectric control, barrier protection, extreme temperature resistance, strength, and flexibility.

### **VERSIV** CAST AND COATED FILMS

Versiv Cast and Coated Films are temperature and chemical resistant materials, engineered to excel across a variety of diverse applications.

What sets our films apart is their adaptability. They are fully customizable, available with a variety of surface treatments – including anti-static and conductive coatings, pressure-sensitive adhesives, and more.



### **VERSIV** ADHESIVE TAPES

Versiv Adhesive Tapes have great temperature and chemical resistance and are used in various applications across many industries.

Available as PTFE-Coated Fabric and mono or multilayer PTFE Films, these tapes can be combined with the properties of silicone and acrylic adhesives, which provide secure bonding to various substrates.

### **VERSIV** MULTIMATERIAL COMPOSITES

**Versiv Multimaterial Composites** are strong, flexible, and customizable materials, engineered for applications in highly demanding environments.

This diverse range includes super-smooth, highly conformable and flex-resistant materials that are designed to excel in the hashest of conditions, or where highest reliability is a "must". Their applications can range from industrial and automotive to aerospace and communication sectors.



# versiv

## Partnerships that inspire. Materials that perform.

#### MANUFACTURING

Based in Ireland since 1980, our experienced, integrated manufacturing and development teams use a wide range of materials and processes to design and create fluoropolymer-coated products, cast films, pressure sensitive adhesive tapes and multimaterial composites that work in the most demanding environments.

We collaborate with customers globally to ensure that the materials we provide are suitable for their applications, offering technical support, design and development assistance, and material selection guidance throughout the process. Our key capabilities include:

- PTFE film casting and fabric coating
- · Dip and reverse roll coating
- Multimaterial lamination (up to 7 layers)
- Fabric converting and fabrication
- Precision converting + die-cutting

You can rely on our sales and engineering teams to communicate effectively with you all the way through to project completion and beyond.

#### **CONVERTING & CUSTOMISATION**

We aim to provide the right solution for our customers' requirements and place significant emphasis on investment in analytical testing and applications engineering, so that the materials you receive will perform as required.

Working with fluoropolymer-based films, fabrics, tapes and multimaterial composites, we offer converting and customization services on our materials. These services include:

- Slitting
- Sheeting
- Surface treatment
- Fabrication
- · Precision component die-cutting
- · Tailor packaging and more

#### **CO-DEVELOPMENT & TESTING**

We know that every customer's needs are unique – and sometimes what you require is a solution developed specifically for you.

Taking a collaborative, co-developmental approach, we work closely with you from the start and throughout our journey together – from drawing board, through prototyping, and application testing to up-scaling and industrialization – to enhance performance with a custom solution.

Our materials go through rigorous environmental, durability and reliability assessments – ensuring products are fit to work in the harshest of environments. When bespoke solutions are needed, co-development sees us work together with partners to apply relevant tests and gather reliable data. Our co-partnered solutions include:

- Product customization through material science
- Precision component die-cut
- Tailored packaging and customer specifications
- Different surface finishes and textures
- Excellent thickness control

#### **ENGINEERING CHALLENGES**

Versiv composite materials are developed for manufacturers who strive for optimal performance, reliability and efficiency – no matter how demanding the process or operational environment.

Our materials offer barrier protection, dielectric control insulation and mechanical stability across a range of challenging conditions, such as withstanding temperature extremes or chemical exposure.

They also reduce friction to extend equipment lifespan and provide non-stick easy release properties to benefit applications where hygiene, productivity and efficiency are crucial.

## versiv **COMPOSITES**

For decades, Versiv Composites has been an expert in high-performance films, fabrics and adhesive tapes solutions. The core of our offering is true versatility, providing a comprehensive selection of material solutions on the market, designed with the most demanding applications in mind.

### **VERSIONS ALSO AVAILABLE:**

Anti-static

Tear-resistant

AS	
TR	
3	

Acrylic adhesive tape

Silicone adhesive tape

Anti-static silicone adhesive tape

#### Find out more at: www.versivcomposites.com

The values presented are typical values and should not be used for specification purposes. Contact your representative for more information.

#### **CONTACT US**

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**Versiv Composites Limited** Kilrush, Co. Clare, V15 NW27, Ireland



#### **CF103**

AS 3 Coated Fabric

CF103 is characterised by a highly consolidated PTFE coating and smooth surface, which results in excellent non-stick and electrical insulation properties. Typical applications include coil and phase insulation on motors, baking release sheets and packaging machines.

Standard Widths	39.4, 60 i	n
Weight	4.6 0	oz/yd²
Thickness	3 r	mil
Tensile Strength	75 x 50 l	b/in
Trap Tear Strength	2.5 x 1.6 l	b
PTFE Content	69 9	%
Temperature Resistance	-240 to +500 °	۴
Dielectric Strength	1267 \	V/mil

**CF203** 

3 Coated Fabric

CF203 is the most popular and widely used thin PTFEcoated glass fabric. It provides good release properties for a wide range of applications. It is typically used as a non-stick surface in heat sealing packaging machines.

AS

Standard Widths	39.4, 60, 78.5 in
Weight	3.8 oz/yd <sup>2</sup>
Thickness	2.8 mil
Tensile Strength	70 x 50 lb/in
Trap Tear Strength	2.9 x 2.0 lb
PTFE Content	63 %
Temperature Resistance	-240 to +500 °F

#### **CF205** AS TR 3 4 A3 Coated Fabric

CF205 is the most widely used PTFE-coated glass fabric and is a versatile and robust release sheet material. It is typically used for non-stick applications in packaging and plastics, as release sheets, and as an "easy-glide' surface for other industries.

Standard Widths	39.4, 60 in
Weight	7.4 oz/yd <sup>2</sup>
Thickness	4.7 mil
Tensile Strength	145 x 130 lb/in
Trap Tear Strength	4.0 x 3.6 lb
PTFE Content	58 %
Temperature Resistance	-240 to +500 °F

CF106-2

AS 3 Coated Fabric

CF106-2 is a dimensionally stable, heavily PTFE-coated glass cloth. It has excellent release properties and chemical resistance. Typical applications include covering of heat sealing platens/wires in the packaging industry, food processing and advanced composites production.

Standard Widths	39.4, 60, 78.5 in
Weight	9.3 oz/yd²
Thickness	5.7 mil
Tensile Strength	160 x 160 lb/in
Trap Tear Strength	3.6 x 3.8 lb
PTFE Content	65 %
Temperature Resistance	-240 to +500 °F
Dielectric Strength	982 V/mil



3 A3 Coated Fabric

CF206 is a highly consolidated PTFE-coated glass fabric with an extra glossy and smooth non-stick surface. It is typically used as a release sheet for covering PVC welding platens or on heat sealing packaging equipment as well as a non-stick covering for dryer cylinders.

Standard Widths	39.8, 60 in
Weight	8.8 oz/yd²
Thickness	5.5 mil
Tensile Strength	160 x 150 lb/in
Trap Tear Strength	3.6 x 3.6 lb
PTFE Content	65 %
Temperature Resistance	-240 to +500 °F





#### SRF 206 Copper

Coated Fabric

SRF 206 Copper is a super smooth PTFE-coated glass cloth that provides superior release properties and excellent chemical resistance. It is typically used in polymer processing applications requiring very smooth and durable surface, such as uPVC window welding.

Standard Widths	39.8	in
Weight	8.6	oz/yd²
Thickness	5.5	mil
Tensile Strength	105 x 105	lb/in
Trap Tear Strength	2.2 x 2.5	lb
PTFE Content	62	%
Temperature Resistance	-240 to +500	°F
Dielectric Strength	1380	V/mil

#### CL6 GX

#### 3 Coated Fabric

CL6 GX is a multilayer PTFE-film laminated glass fabric. It is smooth and has a crack-free non-stick surface. It is typically used as platen covers for PVC welding and provides better and more durable performance than all other traditional coated release fabrics.

Standard Widths	39.8 in
Weight	9.6 oz/yd²
Thickness	6.3 mil
Tensile Strength	160 x 150 lb/in
Trap Tear Strength	4.0 x 3.4 lb
PTFE Content	68 %
Temperature Resistance	-240 to +500 °F

CF110-2

#### AS TR Coated Fabric

CF110-2 is a high-strength, very smooth PTFE-coated glass fabric with excellent release properties. The surface is specifically designed to be micro-crack free and resistant to oils and fats. It is typically used as a conveyor belt in contact grilling and polymer processing.

Standard Widths	39.4, 60 in
Weight	15.9 oz/yd <sup>2</sup>
Thickness	9.8 mil
Tensile Strength	230 x 205 lb/in
Trap Tear Strength	6.1 x 6.5 lb
PTFE Content	62 %
Temperature Resistance	-240 to +500 °F

#### CF310 AS 3 4 A3 Coated Fabric

CF310 is one of the most popular PTFE-coated glass fabrics due to its combination of non-stick release properties and mechanical strength. It is typically used as a release sheet in heat sealing/packaging applications, a conveyor belt for plastic processing or a belt in industrial applications.

Standard Widths	39.4, 60 in
Weight	13.9 oz/yd <sup>2</sup>
Thickness	8.7 mm
Tensile Strength	285 x 215 N/cm
Trap Tear Strength	8.5 x 7.4 N
PTFE Content	56 %
Temperature Resistance	-240 to +500 °F

#### CF210-1

Coated Fabric

CF210-1 is a Versiv PTFE-coated woven glass fabric. It provides excellent release properties as well as chemical and wear characteristics over wide temperature ranges. Typical applications include release sheet, electrical insulation, belting and gasketing.

Standard Widths	39.4, 51.2, 60 in
Weight	14.5 oz/yd²
Thickness	9.1 mil
Tensile Strength	195 x 170 lb/in
Trap Tear Strength	6.7 x 6.7 lb
PTFE Content	58 %
Temperature Resistance	-240 to +500 °F

#### SRF310

#### Coated Fabric

SRF310 is a super smooth, dimensionally stable PTFE coated glass cloth that provides superior release properties and excellent chemical resistance. It is used in a variety of industrial applications that require mechanically strong and competitively priced release solution.

Standard Widths	39.4	in
Weight	13.9	oz/yd²
Thickness	8.7	mil
Tensile Strength	465 x 285	lb/in
Trap Tear Strength	20 x 15	lb
PTFE Content	56	%
Temperature Resistance	-240 to +500	°F
Dielectric Strength	735	V/mil

#### SRF310-2 Black

#### **Coated Fabric**

SRF310-2 Black is a super smooth, dimensionally stable PTFE-coated glass cloth that provides superior release properties. It has been specifically developed to provide long life and higher resistance to fats, oils and grease penetration.

Standard Widths	17.3, 25.6, 43.3, 53.1 in
Weight	13.9 oz/yd²
Thickness	9.4 mil
Tensile Strength	265 x 230 lb/in
Trap Tear Strength	7.9 x 7.9 lb
PTFE Content	56 %
Temperature Resistance	-240 to +500 °F
Surface Resistance	< 1 x 10° Ω/cm²

#### **CLF910**

#### **Coated Fabric**

CLF910 is a flexible and versatile multilayer PTFE-film laminated glass fabric. It provides excellent non-stick release properties, as well as increased wear and abrasion performance. It is specifically designed for use in food applications, e.g. contact grilling and fat frying.

Standard Widths	17, 25.5, 27.5, 39	in
	43, 47, 53, 59	in
Weight	17.4	oz/yd²
Thickness	11.6	mil
Tensile Strength	300 x 265	lb/in
Trap Tear Strength	9.0 x 8.5	lb
PTFE Content	66	%
Temperature Resistance	-240 to +500	°F

#### **CF214-1 AS X**

Coated Fabric

CF214-1AS X is an anti-static, high gloss, super smooth PTFE-coated glass fabric. It offers excellent and durable release properties combined with high mechanical strength and dimensional stability.

Standard Widths	60, 78.7 in
Weight	20.6 oz/yd <sup>2</sup>
Thickness	13.6 mil
Tensile Strength	345 x 285 lb/in
Trap Tear Strength	15.7 x 14.6 lb
PTFE Content	59 %
Temperature Resistance	-240 to +500 °F
Surface Resistance	< 1 x 10° Ω/cm <sup>2</sup>

#### **CF314**

TR Coated Fabric

CF314 is a medium-weight PTFE-coated glass fabric. It is typically used as a non-stick surface in applications which require a high strength release sheet and regular replacement.

	Standard Widths	39.4, 60	in
	Weight	18.6	oz/yd²
	Thickness	12	mil
	Tensile Strength	380 x 290	lb/in
	Trap Tear Strength	15.7 x 11.2	lb
1.1	PTFE Content	54	%
	Temperature Resistance	-240 to +500	°F











#### CF4430

#### Coated Fabric

CF4430 is a heavy duty belting fabric highly suitable for use in demanding high temperature environments where fabric texture is required. Its strength and rigidity make it ideal for use as large belts especially in the carpet and floor covering industries where rubber or PVC backings are being processed.

Standard Widths	96.5	in
Weight	29.9	oz/yd²
Thickness	26.8	mil
Tensile Strength	400 x 515	lb/in
Trap Tear Strength	54.0 x 78.7	lb
PTFE Content	41	%
Temperature Resistance	-240 to +500	°F

#### **TCK106**

**TCK117 X** 

Standard Widths

Tensile Strength

PTFE Content

Trap Tear Strength

Temperature Resistance

Weiaht Thickness

or various lamination processes.

#### Coated Fabric

**Coated Fabric** 

70.9, 102.4 in 20.6 oz/vd<sup>2</sup>

460 x 685 lb/in

27.0 x 40.5 lb

-73 to +220 °F

17 mil

63 %

Coated Fabric

TCK106 is a PTFE-coated aramid fabric with an extremely high tensile strength to thickness ratio. It is typically used in conveyor belt applications where a thin high-strength material is required. It is recommended for use in moist and steam environments.

Standard Widths	49.2 in
Weight	7.7 oz/yd <sup>2</sup>
Thickness	6.7 mil
Tensile Strength	230 x 230 lb/in
Trap Tear Strength	15.9 x 19.1 lb
PTFE Content	71 %
Temperature Resistance	-73 to +220 °F

TCK117 X is an ultra-strong PTFE-coated woven aramid

fabric that offers improved non-stick release perfor-

mance and durability. Typical applications are conveyor

belts for food processing and high-speed textile drying





CF903 is a lightly-coated porous PTFE glass fabric that provides controlled porosity. It is typically used as a porous release fabric for moulding and curing applications such as composites, where off-gassing is required.

Standard Widths	39.4, 78.7 in
Weight	2 oz/yd²
Thickness	2.4 mil
Tensile Strength	75 x 50 lb/in
PTFE Content	29 %
Temperature Resistance	-240 to +500 °F

#### CF905-2

**Coated Fabric** 

CF905-2 is a PTFE coated glass fabric which provides controlled porosity. This material is used in applications where there is a need for a textured surface and/or airflow through the fabric, such as composite molding and curing.

Standard Widths	39.4, 60	in
Weight	3.8	oz/yd²
Thickness	4.5	mil
Tensile Strength	180 x 165	lb/in
PTFE Content	19	%
Temperature Resistance	-240 to +500	°F



#### **Coated Fabric**

CF910-1 is a lightly-coated porous PTFE glass fabric. It is typically used as a porous release fabric for moulding and curing applications such as composites where "off-gassing" is required. It is also used in packaging film welding to obtain clear texture and imprint at the seal closure area.

Standard Widths	39.4, 60 in
Weight	8.5 oz/yd <sup>2</sup>
Thickness	7.9 mm
Tensile Strength	250 x 190 lb/in
PTFE Content	15 %
Temperature Resistance	-240 to +500 °F

ULTRA 3320 BR/BL

**Coated Fabric** 

=ilm

Film

CL3320 ULTRA Brown/Black combines dimensional stability and excellent heat transfer with a highly engineered surface. It is commonly used in heat setting, lamination, chemical barriers, and food processing applications, in particular tortilla manufacturing.

Standard Widths	40, 53 in
Weight	16.5 oz/yd²
Thickness	10.4 mil
Tensile Strength	320 x 225 lb/in
Trap Tear Strength	27 x 22 lb
Temperature Resistance	-240 to +500 °F

#### **DF100**

DF100 is an isotropic, multilayer cast PTFE film produced using a proprietary process. It has a smooth and uniform surface with superior release, low permeability, and is pinhole and crack-free. It is commonly used as frame gaskets on electrolyzers and fuel cells, and in the production of decal substrates.

Standard Widths	18 in
Thickness	1 to 5 mil
Tensile Strength	4,300 psi
Elastic Modulus	60,000 psi
Elongation	400 %
Dielectric Strength	4.20 V/mil

#### **DF2929N**

DF2929N is a polyimide-based composite coated with fluoropolymer. Durable and lightweight, it offers extra wear resistance and excellent insulation properties. With its very low, consistent cofficient of friction, this product is used in very demanding applications such as electronics, automotive and medical.

Standard Widths	39.4 in
Thickness	2.6 mil
Adhesion	3.9 lb/in
Elongation	72 %
Dielectric Strength	2690 V/mil
Surface Roughness	0.46 µm

CSSP	SA-	5 S
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Film Adhesive Tape

CSSPSA-5 S is a high quality skived PTFE film coated with silicone adhesive on one side. It provides the unique characteristics of PTFE in a form suitable for application as a surface liner to wood, metal or plastic. A separate liner is applied to the adhesive surface for ease of application.

Standard Widths	39.4 in
Base PTFE Fabric Weight	8.3 oz/yd <sup>2</sup>
Base Thickness	5 mil
Adhesive Thickness	1.8 mil
180° Peel Adhesion Strength	3.3 lb/in
Polyken Tack	19.4 oz
Temperature Resistance	-99 to +500 °F

#### CLPSA 4 S Coated Fabric Adhesive Tape

CLPSA 4 S is a flexible, composite that combines the features of multi-layer cast films with the mechanical properties of glass fabric. Coated with a high performance, silicone adhesive, CLPSA 4 S and has been a product of choice for polymer and epoxy processing applications.

Standard Widths	39.8 in
Base PTFE Fabric Weight	5.2 oz/yd <sup>2</sup>
Base Thickness	4.3 mil
Adhesive Thickness	1.8 mil
180° Peel Adhesion Strength	2.7 lb/in
Tensile Strength	85 x 70 lb/in
PTFE Content	77 %
Temperature Resistance	-99 to +500 °F

#### CS203 S

#### Coated Fabric Adhesive Tape

CS203 S is a PTFE-coated fabric with a high performance, silicone pressure-sensitive adhesive on one side. The product has a yellow corrugated liner to protect the adhesive surface and to ease identification and use.

Standard Widths	39.4 in
Base PTFE Fabric Weight	3.8 oz/yd <sup>2</sup>
Base Thickness	2.8 mil
Adhesive Thickness	1.8 mil
180° Peel Adhesion Strength	3 lb/in
Tensile Strength	70 x 50 lb/in
PTFE Content	63 %
Temperature Resistance	-99 to +500 °F

#### CS205 S

Coated Fabric Adhesive Tape

CS205 S is a PTFE-coated fabric with a high performance, silicone pressure-sensitive adhesive on one side. The product has a yellow corrugated liner to protect the adhesive surface and to ease identification and use.

Standard Widths	39.4 in
Base PTFE Fabric Weight	7.4 oz/yd <sup>2</sup>
Base Thickness	4.7 mil
Adhesive Thickness	1.8 mil
180° Peel Adhesion Strength	4 lb/in
Tensile Strength	145 x 130 lb/in
PTFE Content	58 %
Temperature Resistance	-99 to +500 °F

#### CS206 S Coated Fabric Adhesive Tape

CS206 S is a PTFE-coated fabric with a high performance, silicone pressure-sensitive adhesive on one side. The product has a yellow corrugated liner to protect the adhesive surface and to ease identification and use.

Standard Widths	39.8 in
Base PTFE Fabric Weight	8.8 oz/yd <sup>2</sup>
Base Thickness	5.5 mil
Adhesive Thickness	1.8 mil
180° Peel Adhesion Strength	4 lb/in
Tensile Strength	160 x 150 lb/in
PTFE Content	65 %
Temperature Resistance	-99 to +500 °F

#### CS310 S Coated Fabric Adhesive Tape

CS310 S is a PTFE-coated fabric with a high performance, silicone pressure-sensitive adhesive on one side. The product has a yellow corrugated liner to protect the adhesive surface and to ease identification and use.

Standard Widths39.4 inBase PTFE Fabric Weight13.9 oz/yd²Base Thickness8.7 milAdhesive Thickness1.8 mil180° Peel Adhesion Strength4 lb/inTensile Strength285 x 215lb/inPTFE Content56 %Temperature Resistance-99 to +500 °F		
Base Thickness8.7 milAdhesive Thickness1.8 mil180° Peel Adhesion Strength4 lb/inTensile Strength285 x 215 lb/inPTFE Content56 %	Standard Widths	39.4 in
Adhesive Thickness1.8 mil180° Peel Adhesion Strength4 lb/inTensile Strength285 x 215 lb/inPTFE Content56 %	Base PTFE Fabric Weight	13.9 oz/yd <sup>2</sup>
180° Peel Adhesion Strength 4 lb/in   Tensile Strength 285 x 215 lb/in   PTFE Content 56 %	Base Thickness	8.7 mil
Tensile Strength285 x 215 lb/inPTFE Content56 %	Adhesive Thickness	1.8 mil
PTFE Content 56 %	180° Peel Adhesion Strength	4 lb/in
	Tensile Strength	285 x 215 lb/in
Temperature Resistance -99 to +500 °F	PTFE Content	56 %
	Temperature Resistance	-99 to +500 °F

### SOLUTIONS FOR

HIGHER QUALITY FINISHES

CONSISTENT PRODUCTION PROCESSES

### IMPROVED PRODUCTIVITY AND COST EFFECTIVENESS







#### **CRAFTING EXCELLENCE SINCE 1980**

Our facility has been situated in west Clare, Ireland, for over 40 years.

### versiv

Partnerships that inspire. Materials that perform.

Versiv is a recognized expert in high-performance, technologydriven, fluoropolymer-based materials and customized solutions. With over 40 years' experience, our films, fabrics, tapes and multimaterial composites are highly regarded in various B2B industries, with renowned companies among our clients.

Our specialty offering meets the diverse needs of customers seeking high-performance materials, that take on demanding tasks, in providing everything from safe and protective barriers, easy-release surfaces, dielectric insulation and friction control.

We adapt to make even more possible. Our collaborative, copartnership approach inspires the success of our customers and the evolution of our capabilities, enabling us to deliver top-notch, off-the-shelf products and co-developed solutions.

#### **CONTACT US**

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