



High Strength Filament



Water Soluble Staple Fiber



Acetalized Filament Tow

Polyvinyl Alcohol Filament and Fiber



High Dispersion, High Strength Short Fiber



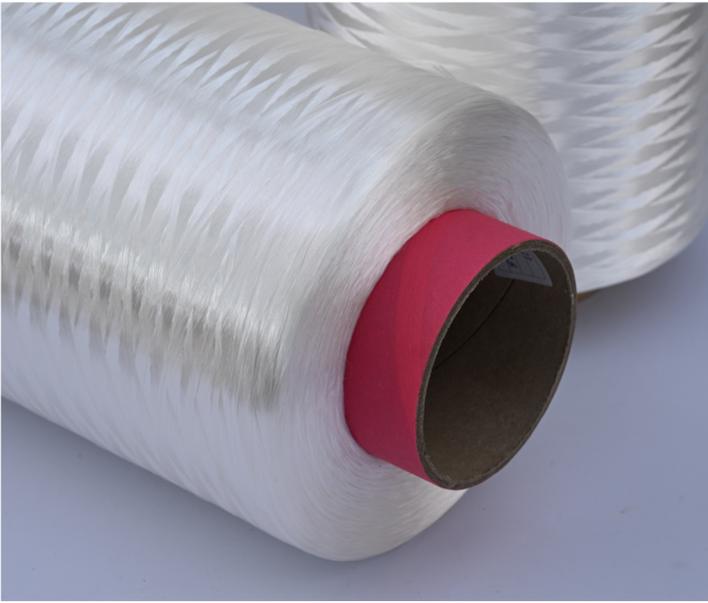
Fiberfill



Acetalized Short Fiber



Wastewater Treatment Fibers

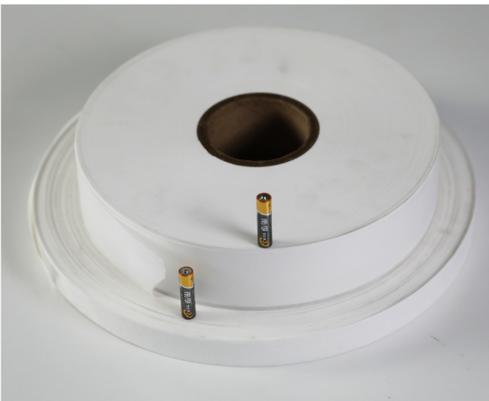


The strength of PVA

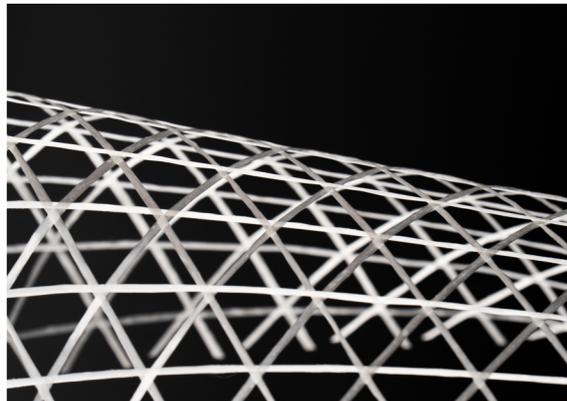
Our polyvinyl alcohol (PVA) products advance energy storage and next-gen materials and power premium bedding, durable protective apparel, and efficient wastewater systems. As a leading manufacturer of high-strength PVA filament, we deliver exceptional strength, precision, and sustainable performance. Our filament and fiber products are able to withstand high-acid and high-alkali environments, making them ideal for demanding applications including geotextiles, rubber hoses, battery separator paper, cement/concrete boards, and seaweed farming.

Key Properties of PVA

1. High Acid and Alkali Resistance
2. High Strength and Durability
3. Excellent UV Resistance
4. Environmentally Friendly
5. Customizable Solubility



Battery Separator Paper
Made with Acetalized Short Fiber



Geotextiles
Made with High Strength Filament



Dipped Yarn
Made with HSHM Filament



Product Applications

Industry Uses

Oil and Gas Piping
Conveyor Belts
Fire Hoses
Wastewater Treatment
Oilfields
Refractory Castables

Personal Protective Equipment

Safety Helmet
Riot Gear
Protective Apparel
Disposable Medical Apparel

Home and Luxury

Zero-Twist Towels
High Count Fabrics
Lace Patterns
Bedding Material
Toys and Keepsakes

Construction

Geosynthetic Materials
Concrete Reinforcement
Reinforcement Geogrids

Automotive

Air Conditioning Hose
Power Steering Hose
Radiator Hose
Brake Hose
Tire Cords

Energy Storage

Battery Separator Paper

Farming and Environment

Seaweed Farming Nets



High Count Yarn
Made with Solu-Series Products



Oilfield and Industrial Applications
Made possible with Oilfield Fibers



Lace Patterns and Specialty Textiles
Made possible with Solu-Series Products

Products for Textiles and Filtration

Apparelon



Properties	Apparelon
Nominal Linear Density, dtex	1.56 - 2.20 ¹
Linear Density Tolerance, %	± 6.0
Fiber Length, mm	35 - 76
Tenacity at Break, cN/dtex	≥ 8.0
Elongation at Break, %	≥ 13.0
Number of Crimps per 25mm, No.	≥ 12
Hot Water Resistance, °C	≥ 115
Rate of Moisture Regain, %	5.0 ± 1.0

Apparelon surpasses cotton by establishing a new benchmark in textile performance. Our PVA-based fibers offer superior moisture-wicking properties, tensile strength, and inherent UV/chemical resistance. Compatible with existing manufacturing processes, these fibers can be spun alone or blended without retooling, making them ideal for specialized **protective apparel and high-strength military textiles**.

Flufflon



Properties	Flufflon
Nominal Linear Density, dtex	1.67
Linear Density Tolerance, %	± 10.0
Fiber Length, mm	51
Tenacity at Break, cN/dtex	4.0
Elongation at Break, %	≥ 14.0
Number of Crimps per 25mm, No.	≥ 4.1
Oil Content, %	0.30 - 0.60

Flufflon combines soy protein with PVA through proprietary wet-spinning to create the ultimate fiberfill material. This blend delivers exceptional loft with compression recovery, antibacterial properties, and resistance to UV radiation. With natural anti-static performance that repels dust, Flufflon is ideal for **premium bedding, furniture cushions, and stuffed toys** requiring lasting softness and durability.

Filter Pro Fibers



Properties	Filter-Pro Fiber
Nominal Linear Density, dtex	0.55 - 2.0 ¹
Linear Density Tolerance, %	± 10
Tenacity at Break (when dry), cN/dtex	≥ 6.0
Elongation at Break (when dry), %	14.0 ± 5.0
Doping Ratio between PVA and Polyester	Can be Customized

Filter-Pro helps accelerate natural water purification by creating optimal environments for beneficial microorganisms. By blending PVA and Polyester, our Filter-Pro fiber increases performance in biological wastewater treatment when utilized in Snowflake-type rings. Doping ratio can be customized to specification when used in **contact oxidation towers, oxidation ponds, and oxidation tanks**.

¹Customer to specify a target value for Linear Density between this range.

Products for Specialty Applications

Acetal-Series Products

Available as **short fiber**, **staple fiber**, or **continuous filament tow**.



Our Acetal-Series products help create **high-efficiency battery separators**. Our fibers deliver exceptional dendrite resistance, stability in alkaline, superior electrolyte retention, and lightweight performance.



Properties	RD-I (Short Fiber)	RD-II, RD-III (Staple Fiber)	RQ (Filament Tow)
Nominal Linear Density, dtex	0.55 - 1.10 ³	1.56	0.55 - 2.0 ³
Linear Density Tolerance, %	± 10	± 10	± 10
Tenacity at Break (when dry), cN/dtex	≥ 5.5	≥ 4.4	≥ 6.0
Elongation at Break (when dry), %	M ⁴ ± 3.0	M ⁴ ± 3.0	14.0 ± 5.0
Fiber Length, mm	3, 4, 6	35 - 51	-
Hot Water Resistance, °C	≥ 100	≥ 115	-
Number of Crimps per 25mm, No.	-	≥ 3.5	-

Solu-Series Products

Available as **short fiber**, **staple fiber**, or **continuous filament tow**.



Our Solu-series water-soluble PVA products act as temporary structural elements in textile manufacturing, dissolving completely at set temperatures.

Once dissolved, our fibers form a non-toxic solution which will not harm people or the environment. This enables the creation of exceptionally light, soft textiles with intricate designs.

Our Solu-Series products enhance **zero-twist towels, high-count yarns and medical products**.



Properties	RS-8 (W) ¹ Staple Fiber	RS-8 (F) ² Staple Fiber	RS-9 (W) ¹ Staple Fiber	RS-9 (F) ² Staple Fiber	RS-7 Filament	RS-8 Filament	RS-9 Filament
Nominal Linear Density, dtex	1.0 - 2.0 ³	1.0 - 2.0 ³	1.0 - 2.0 ³	1.0 - 2.0 ³			
Linear Density Tolerance, %	± 8.0	± 8.0	± 6.0	± 6.0	-	-	-
Fiber Length, mm	38	38	38	38	-	-	-
Dissolving Temperature, °C	76 ~ 85	76 ~ 85	86 ~ 95	86 ~ 95	70 ± 5	80 ± 5	97 ± 3
Tenacity at Break (when dry), cN/dtex	≥ 3.8	≥ 3.8	≥ 4.5	≥ 4.5	≥ 4.0	≥ 4.0	≥ 5.0
Elongation at Break (when dry), %	22 ± 5	22 ± 5	22 ± 5	22 ± 5	-	16.0 ± 5.0	15.0 ± 5.0
Number of Crimps per 25mm, No.	≥ 3.5	≥ 3.5	≥ 3.5	≥ 3.5	-	-	-
Hot Water Insolubles, %	≤ 0.08	≤ 0.08	≤ 0.08	≤ 0.06	-	≤ 0.12	≤ 0.12

¹(W) signifies fibers for non-woven applications. ²(F) signifies fibers for textile applications.

³Customer to specify a target value for Linear Density and Elongation between this range.

⁴M values indicate elongation levels between 10–20%, and can be customized to meet customer requirements.

High Strength Filament and Fiber

High-Strength, High Modulus PVA Filament

Available in customizable densities between 1100 dtex, 1330 dtex, and 2000 dtex.



Our High Strength, High Modulus PVA Filament is a continuous filament yarn offering superior tensile strength with low elongation and minimal heat shrinkage. It provides high UV, weather, and chemical resistance.

With high tenacity, it's ideal for weaving **geotextiles, nets, and ropes**. In construction, it serves as a superior alternative to steel. Its strong bond with rubber enhances **industrial hoses, automotive hoses, conveyor belts, and high-performance tires**.

Property	1100 dtex	1330 dtex	2000 dtex
Filament Number	200f, 500f	200f, 500f	750f, 1000f
Linear Density, dtex	1100 ± 60	1330 ± 70	2000 ± 100
Monofilament Tenacity, cN/dtex	≥11.0	≥11.0	≥11.0
Yarn Tenacity, cN/dtex	9.5 ± 1.0	9.5 ± 1.0	9.5 ± 1.0
Tensile Strength at Break, N	≥90.0	≥110.0	≥175.0
Elongation at Break, %	≥5.5	≥5.5	≥5.5
Oil Content, %	0.25 ± 0.10	0.25 ± 0.10	0.25 ± 0.10
Heat Shrinkage (150°C, 30 minutes), %	≤1.5	≤1.5	≤1.5



HSHM Short Fiber

Available in **Short Fiber** and **Glued Fiber** format.



Property	High Strength PVA (Short Fiber)
Linear Density, dtex	2.0 ± 0.30
Tenacity, cN/dtex	≥11.5
Initial Modulus (0.1-0.4%), cN/dtex	≥260
Elongation, %	≤7.5
Hot Water Solubility (90%, 1 hour), %	<1.5
Initial Melting Point, °C	≥100
Oil Content, %	0.05 - 0.30
Dispersion, Grade	1 to 3

Our HSHM PVA Short Fiber is a lightweight, non-toxic, anti-corrosive reinforcement for cement-based composites that bonds strongly with cement and rubber to improve tensile strength, impact resistance, and crack control.

As a sustainable alternative to asbestos and steel, it offers excellent UV and aging resistance, and is ideal for **decorative panels, roofing, cement blocks**. Available in a glued format, which increases dispersibility in concrete mixes.



Products for Industrial Applications

Oilfield Fibers



Properties	Oilfield Fiber
Nominal Linear Density, dtex	2.0 ± 0.2
Fiber Length, mm	6
Fiber Density, g/cm³	1.25 - 1.30
Solubility (90 °C, 30 min), %	≤ 10%
Acid Solubility (150 °C, 4 hours, 2% HCl), %	≥ 90%

Oilfield Fibers deliver strength in the field with zero residue, enhancing drilling, cementing, and fracturing efficiency. Designed for demanding wellsite conditions, they improve **sand transport, fracture conductivity, and plugging performance**—ensuring every stage is completed from wellbore to well done with reliable, predictable results across diverse reservoir types.

Burst Proof Fibers



Properties	Burst-Proof Fiber
Nominal Linear Density, dtex	0.56, 1.0, 2.0, 3.0, 5.0
Fiber Length, mm	3, 4, 6, 8, 10
Fiber Diameter, um	7, 11, 20, 30, 50
Dissolving Temperature, °C	20, 40, 60, 70, 90, 105
Water Content, %	≤ 5

Burst-Proof Fiber prevents catastrophic cracking in **high-temperature refractory linings** by creating microchannels for steam to escape. These fibers integrate uniformly throughout castables, melting during initial heating to form micro-pores that safely release trapped water vapor. Unlike conventional alternatives, our solution disperses evenly without clumping while remaining chemically inert—preserving your castable's original chemistry.

Binder Fibers

Our Binder Fiber transforms ordinary paper into high-performance material with exceptional tensile strength, tear resistance, and burst durability. These fibers **optimize paper performance** by maintaining dimensional stability under stress. Easily incorporated into existing manufacturing systems, our Binder Fibers deliver superior reinforcement properties while preserving production efficiency.



Properties	RSY-6	RSY-7	RSY-8	RSY-9	RSY-L
Nominal Linear Density, dtex	1.0 - 2.0	1.0 - 2.0	1.0 - 2.0	1.0 - 2.0	-
Fiber Length, mm	3, 4, 6, 8	3, 4, 6, 8	3, 4, 6, 8	3, 4, 6, 8	4, 6
Dissolving Temperature, °C	60	70	80	90	≥ 95
Sodium Sulfate Content, %	20	20	20	20	≤ 18
Solubility in Water	Yes	Yes	Yes	Yes	No



JCT Industries Group



RzW Vinylon Co. Ltd.

Our Story

Established in 2017, JCT Industries Group Sdn Bhd is committed to delivering cutting-edge, tailored solutions for global needs by specializing in the production of **High Strength and High Modulus (HSHM) PVA Fiber and Filament**. Currently, JCT Industries produces 1,000 tons annually of PVA Filament and 8,000 tons of PVA fiber. Strategically located in the industrial hub of Sungai Petani, Kedah, Malaysia, its close proximity to **Penang Port** provides easy access to global shipping routes.

Similarly, founded in 2020, RzW Vinylon specializes in the research, development, production, and sales of PVA fibers. Our 30,000 square meter factory consists of purpose-built facilities, which include state-of-the-art production workshops, a dedicated R&D center, an advanced sewage treatment station, and modern tank fields. Annually, RzW Vinylon produces **10,000 tons** of PVA fiber. RzW Vinylon is strategically located in the heart of **Chongqing, China**, which also provides easy access to global shipping routes.



JCT Industries Group

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Care Holdings is a key investor in JCT (Malaysia) and RzW (China), leading manufacturers of polyvinyl alcohol (PVA) filament and fiber.

