

High Temperature Fabrics

PERFORMANCE MATERIALS FOR INDUSTRIAL APPLICATIONS



Newtex provides a comprehensive line of innovative high temperature products that are used across industries for managing heat and protecting workers and facilities. Our fabrics, which include the original Zetex® and ZetexPlus®, have excellent fabrication and handling properties, support temperatures to 1090°C, and minimize heat transfer while resisting moisture, chemicals, stress, and abrasion. We control the entire process – from yarn production and weaving to coating and inspection – to ensure quality and keep costs low. With a range of fabric weights, constructions, and coatings to choose from, we can help you to find exactly the right product for your specific application.

Applications: Removable Insulation, Lagging, Fabric Expansion Joints, Gasketing and Sealing, Welding and Equipment Protection, Stress Relieving, Fire and Heat Barriers, Safety Apparel, Gloves and Mitts

Zetex® 540°C

The industry standard in high temperature protection

Woven from highly texturized continuous filament yarn, Zetex provides superior thermal and acoustic insulation. A unique overspray process preserves texturization in fabrication and use. And since the fabric is made from inorganic materials, it won't smolder or produce hazardous outgassing.

Z-Fil™ 540°C

Strong, lightweight facing and coating fabric

Made from continuous filament yarn, Z-Fil is strong, thin, and lightweight. It is ideal for coating with Silicone, Teflon (PTFE), or other elastomers to enhance the base fabric performance and can also be used as an economical facing or stress relieving material. Available in plain, twill, or satin construction. Woven with single yarns, or with plied yarns for added strength and thickness.

Note: Unless otherwise noted, all temperatures shown are peak temperatures.

ZETEX AND ZETEX PLUS GRADES

Commercial Grade

Made with 9 micron yarn to provide economic yet highly effective thermal and acoustic insulation. Use in lagging, stress relief, and removable insulation.

Premium Grade

Made with 6 micron yarn to enhance handleability, ease of fabrication, and resistance to abrasion and flexural fatigue. Use in lagging, fabric expansion joints, removable insulation, and safety apparel. **Meets MIL-C-20079.**

ZetexPlus® 1090°C

The same essential protection with twice the heat resistance

Treated with a specialty proprietary high temperature coating to dissipate heat across the surface of the fabric, ZetexPlus provides all the benefits of Zetex while supporting temperatures as high as 1090°C.

Z-Sil™ 1650°C

Flexible high-silica for the most extreme temperatures

Supporting continuous operating temperatures of 980°C with peak temperatures to 1650°C, Z-Sil provides strong protection from sparks and slag and is ideal for stress relieving, stainless steel welding, and equipment protection. The fabric is treated with a proprietary inorganic coating that improves abrasion resistance and remains with the fabric even at high temperatures.

Special Grade

- Special Construction (SC): Balances warp and weft for equal strength in both dimensions.
- Special Weave: Satin Weave (SW) or heavier-weight Twill Weave (TW) enhances conformability and flexibility.
- Wire Reinforced (WR): Adds wear resistance and conducts heat away from the insulated surface.
- Custom Engineered: Adds flexibility, strength, puncture resistance, and other features based on application needs.

FABRIC WEIGHTS

Fabric weights range from 200 grams per square meter to 3730 grams per square meter. Lighter weight fabrics such as Zetex and ZetexPlus 300 through 700 are thinner, providing economical basic insulation, such as for lagging, removable insulation systems, and stress relieving. Heavier weight Zetex and ZetexPlus 1000 and above provide superior insulation and durability, making them well suited for fabricating safety apparel, fire blankets and curtains, welding products, and fabric expansion joints.

FABRIC SPECIFICATIONS

Fabrics are available in select widths ranging from 1 meter to 1.8 meters. Contact Newtex for detailed specifications.

Zetex® and ZetexPlus® Premium and Commercial Grade

Style	Weight Gr/Sq M	Thickness mm
300	290	0.5
400	410	0.8
600	610	0.9
800	810	1.5
1000	1020	1.7
1200	1190	2.0
1350	1360	2.2
2200	2170	3.2
3400	3390	6.4

Z-Sil™

600-AR	610	0.9
800-AR	810	1.5
1100-AR	1220	1.7

Z-Fil™

200-PW (7628)	200	0.2
407-4HS (332)	410	0.4
475-PW (2523)	440	0.4
824-8HS (3784)	880	0.7

TREATMENTS AND COATINGS

Newtex offers a range of finishes, treatments, coatings, and laminates that can be applied to most base fabrics to further enhance performance. Our capabilities include:

- Finishes and Treatments: Heat Cleaned (HC), Regular Treatment (RT), Color Dyed, Oil and Water Resistant (OW), Vermiculite, and Bronze
- Coatings: Teflon (PTFE), Neoprene, Silicone, Aluminum, Rewettable, and Acrylics
- Laminates: Aluminum, Aluminum Foil, Stainless Steel Foil, and Pressure-Sensitive Adhesive

Zetex® and ZetexPlus® Special Grade

Style*	Weight Gr/Sq M	Thickness mm
300 - SC	290	0.6
600 - SC	640	1.0
800 - SC	810	1.5
1100 - SC	1020	1.7
1200 - SC	1190	2.0
1210 - SC	1360	2.0
900 - TW	850	1.4
950 - TW	880	1.4
1325 - TW	1320	2.2
800 - WR	810	1.1
1200 - WR	1190	2.0
1210 - WR	1290	1.8
1400 - WR	1490	2.3

*Styles include: SC – Special Construction
TW – Twill Weave
WR – Wire Reinforced

Note: Temperatures are rounded to the nearest 10°C, weights to the nearest 10 grams/square meter, and thicknesses to the nearest tenth of a millimeter.



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As the most trusted name in the industry for over 25 years, Newtex is the pioneer and leading global producer of high temperature textiles for thermal management and fire protection. Our comprehensive product line includes the original Zetex® and ZetexPlus® brand names as well as heat and fire resistant fabrics, insulation fabrics, tapes, ropes, tubings, and safety clothing, which support a broad range of applications that include fire safety, welding protection, insulation systems, expansion joints, and gasketing.