

# PETstrand FR<sup>®</sup>

strength in every strand



## Flame Retardant Poly Binder

As network density increases and installation environments become more complex, flame performance is no longer optional — it is essential. PETstrand FR provides a reliable reinforcement solution that helps limit flame propagation, support compliance objectives, and maintain the mechanical integrity required for high-performance cable designs.

Built on the proven PETstrand platform, this flame-retardant variant enables manufacturers to enhance safety profiles while maintaining the consistency, runnability, and supply stability required for large-scale deployment.

The flame retardant features of PETstrand FR are permanent and anchored into the composition of the material — once protected, always protected.



DUAL END



SINGLE END



HIGH SPEED  
4000RPM



LOW  
SHRINKAGE

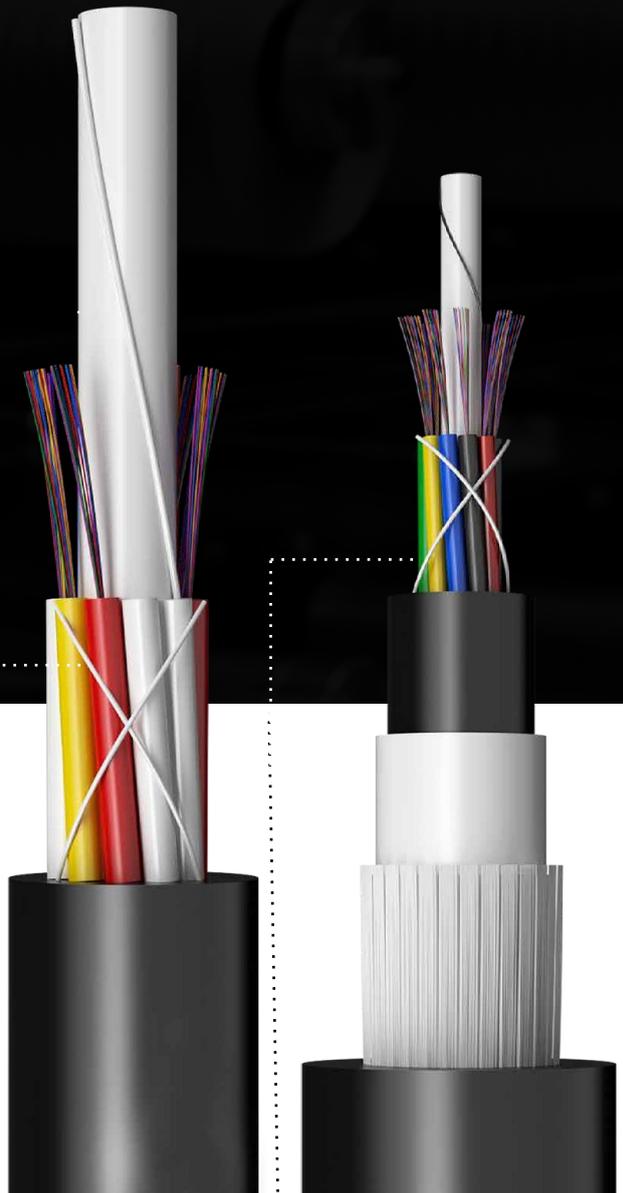


ULTRA LOW  
SHRINKAGE



- Binder yarns in loose tube and ribbon designs
- Central strength member support
- Indoor / riser / indoor-outdoor cable constructions
- Enterprise, hyperscale data center, and critical network infrastructure cables

PETstrand FR Binder Yarn



### GFC

strength in every strand

Granite Falls Composites, Inc | 828-396-2121 | 3908 Hickory Blvd | Granite Falls, NC | USA

Properties	Meter weight	Runnage	Break Strength	Elongation	Shrinkage at 180°C *15 min	Shrinkage at 150°C *15 min
Test method	ASTM D 885	ASTM D 885	ASTM D 885	ASTM D 885	GFC Method	GFC Method
Unit	(g/m)	(m/kg)	(N)	(%)	%	%
<b>1100 dTex LS</b>						
Nom.	0.110	9091	75	20		
Min.	0.105	8658	65	16		
Max.	0.116	9569		24	2.6	0.25
Tolerance	± 5%	± 5%		± 4		
<b>1670 dTex LS</b>						
Nom.	0.170	5882	105	21		
Min.	0.162	5602	95	16		
Max.	0.179	6192		26	2.6	0.50
Tolerance	± 5%	± 5%		± 5		

### Typical Physical Properties

- Material: Flame-retardant modified polyester (Poly-Phosphate Chemistry)
- Available Denier Range: 1000den (1100dtex) 1500den (1670dtex)
- Tensile Strength: High tenacity polyester platform (values available by specification)
- Elongation: Controlled elongation profile for reinforcement applications
- Shrinkage: 2.6% hot air shrinkage 15minutes at 180 C

### Flame Performance

PETstrand FR is designed for use in cable constructions targeting compliance with applicable flame performance standards such as:

- Vertical tray flame tests
- Riser / plenum cable constructions (application dependent)
- IEC flame propagation tests
- Customer-specific fire performance protocols

*Final flame performance is dependent on complete cable design and test method.*

### Processing Characteristics

- Stable package build for high-speed unwinding
- Low fuzz generation
- Consistent tension behavior
- Compatible with standard binder and reinforcement processes
- No special handling requirements relative to standard PETstrand (application dependent)

### Disclaimer

All values are typical and provided for guidance only. Final performance depends on cable design, processing conditions, and test methodology. Detailed specifications are available on request.

