



» PRODUCT BULLETIN

ECCOH™ LSFOH 6153/6154 UV Formulations

Improved processing speeds & greater gel resistance for optical fiber cables

ECCOH™ LSFOH 6153 UV and 6154 UV grades are low smoke, fume, non-halogen material solutions for optical fiber cables with increased processing speeds and greater resistance to chemicals such as gel water blocking compounds, used to protect optical fibers.

VALUE

ECCOH LSFOH grades can run at high processing speeds of up to 1,000 m/min and, with a much lower melting temperature than PBT alternatives, can greatly enhance manufacturing efficiency. They also enable lower wall thickness, reducing raw material used in production.

They offer greater gel resistance, reducing migration over time and expanding the lifetime value of the cable. With good colour rendition, they make identification of tubes or tight buffers easier during installation.

KEY CHARACTERISTICS

- Faster processing speeds (up to 1,000 m/min) at low wall thickness (100 µm)
- Increased chemical resistance
- Lower gel migration
- ECCOH 6153 UV - optimized for Teroson

- ECCOH 6154 UV - optimized for Unigel
- High color rendition and compatibility with Avient masterbatch
- High UV resistance
- Very low shrinkage

MARKET & APPLICATIONS

Optical Fiber Cables including:

- Stranded loose tubes – gel-filled/dry
- Micro-modules
- Tight buffer applications – gel-filled/dry

STANDARD COMPLIANCE

- IEC 60794
- NF XP C93-850-1-1:2020
- EN 50289-4-17:2016
- ISO 4892:2016
- ST/CNET/5843 (1998)

GEL MIGRATION PERFORMANCE

ECCOH LSF0H 6153/6154 UV grades offer greater gel migration performance compared to alternative ECCOH grades.

Gel Compound	MIGRATION OF GEL COMPOUND		
	ECCOH™ 6151*	ECCOH™ 6153 UV	ECCOH™ 6154 UV
Unigel	Average	Good	Excellent
Teroson	Average	Excellent	Good
Itcogel	Average	Good	Excellent

Gel migration is measured using a quantitative internal method

* 6151 can be supplied with UV protection

RHEOLOGICAL PERFORMANCE

ECCOH 6153/6154 UV grades offer enhanced rheological behavior. Performing at a lower pressure and with less stress enables a smoother surface finish and can increase processing speeds by up to 15% compared to alternative grades.

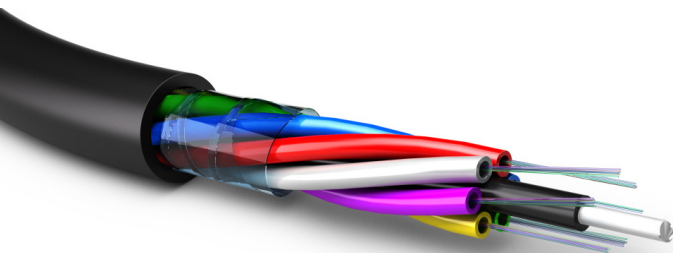
	ECCOH™ 6151	ECCOH™ 6153 UV	ECCOH™ 6154 UV
ΔP (bars)	101	63	60
Shear Rate (1/s)	9	9	9
Stress (kPa)	127	79	75

* Values concluded from the simulation of materials rheological data and modelling standard extrusion tooling

Pressure: can affect extruder performance, higher pressure gives a lower output at the same rpm

Shear rate: has a relation with self-cleaning of the walls and mixing conditions

Stress: can affect the surface of the product, less stress gives a better surface aspect



Application example:
Gel-filled stranded loose tube optical fiber cable

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