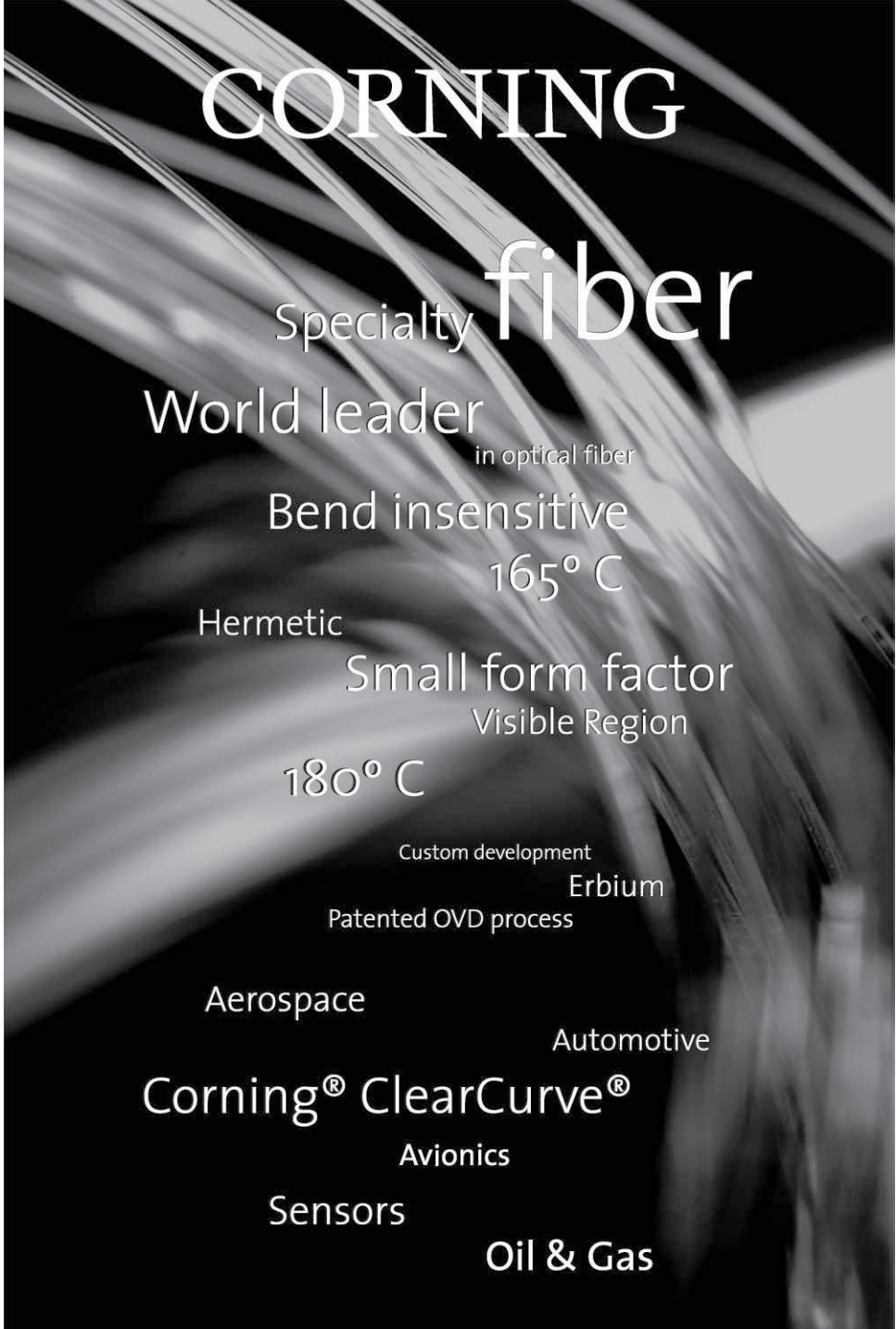


# Corning® Specialty Optical Fibers For Harsh Environments

Corning Specialty Fiber understands the need for flexibility, functionality and performance in harsh environment markets. That's why a suite of mid-temperature fibers has been developed; offering performance where you need it and reliability where it counts. Now offering acrylate based coatings up to 180°C, Corning continues to test its fibers to provide you with the information that you need when making those key decisions in your system. Combining Corning's extensive portfolio of glass fibers with easy to handle coatings designed for use in elevated temperature applications, Corning Specialty Fiber is reaching beyond to bring to you what you need today.

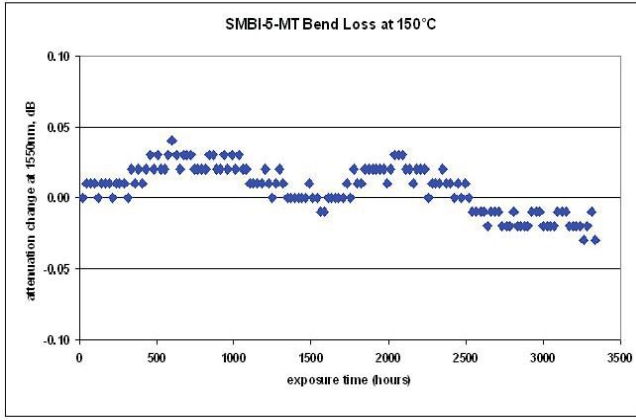


CORNING



CORNING  
Specialty fiber  
World leader  
in optical fiber  
Bend insensitive  
165° C  
Hermetic  
Small form factor  
Visible Region  
180° C  
Custom development  
Erbium  
Patented OVD process  
Aerospace  
Automotive  
Corning® ClearCurve®  
Avionics  
Sensors  
Oil & Gas

**Bending @ Temperature**

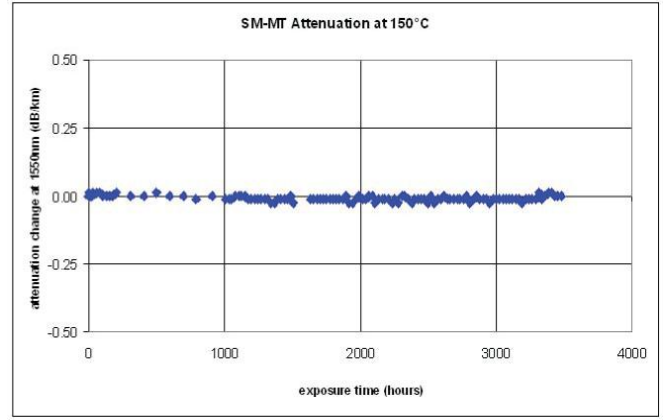


**Aged Bend Loss At 150°C, SMI-5-MT (3,300 hours)**

SMBI-5-MT fiber was exposed to 150°C continuously. Fiber was deployed in a single turn on a 5mm radius mandrel.

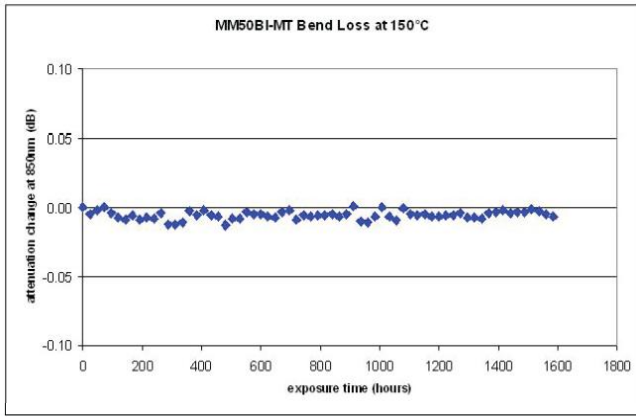
**Optical**

**150 °C**



**Aged Attenuation at 150°C (3,500 hours)**

SM-MT fiber exposed to 150°C. Measurements were obtained without movement of the fiber.

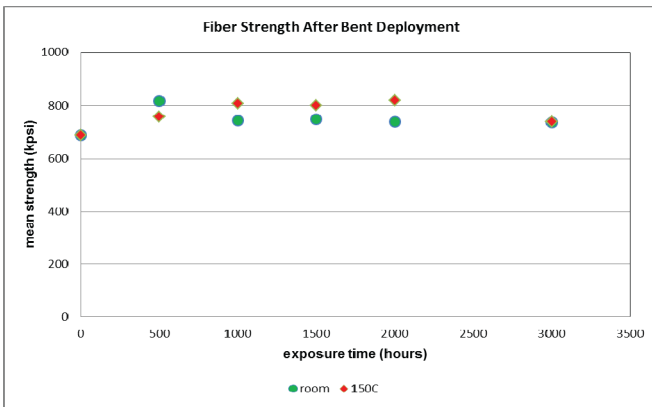


**Aged Bend Loss At 150°C, MM50BI-MT (1,600 hours)**

MM50BI-MT fiber was exposed to 150°C continuously. Fiber was deployed in a single turn on a 7.5mm radius mandrel.



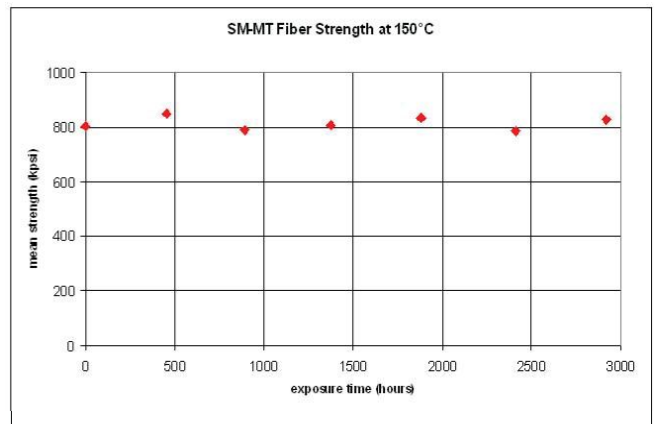
**150 °C**



**Fiber Strength After 5mm Radius Deployment (3,000 hours)**

SMBI-5-MT fibers were deployed on a 5mm radius mandrel while exposed to 150°C continuously. Control fibers were deployed similarly at room temperature. Measured according to IEC 60793-1-31; 0.5 meter gauge length; 500mm/min crosshead speed; 50% RH and 22°C

**Mechanical**

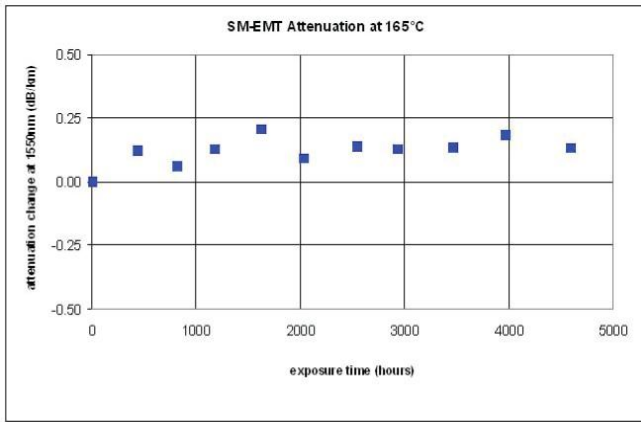


**Strength of Fiber Aged at 150°C (2,900 hours)**

SM-MT fiber exposed to 150°C then strength tested. Measured according to IEC 60793-1-31; 0.5 meter gauge length; 500mm/min crosshead speed; 50% RH and 22°C

# Optical

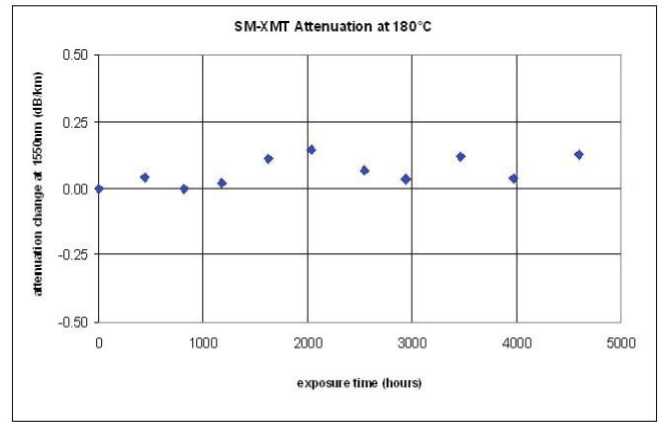
## 165 °C



**Aged Attenuation at 165°C  
(4,700 hours)**

SM-EMT fiber exposed to 165°C. Fiber was moved in order to obtain each measurement.

## 180 °C

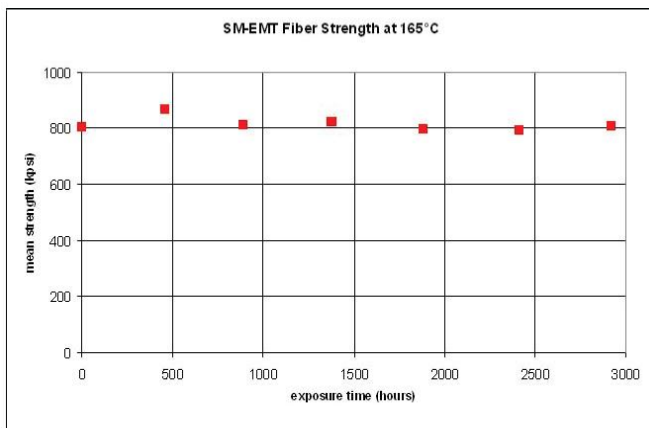


**Aged Attenuation at 180°C  
(4,700 hours)**

SM-XMT fiber exposed to 180°C. Fiber was moved in order to obtain each measurement.

to 180 °C ...  
and Beyond

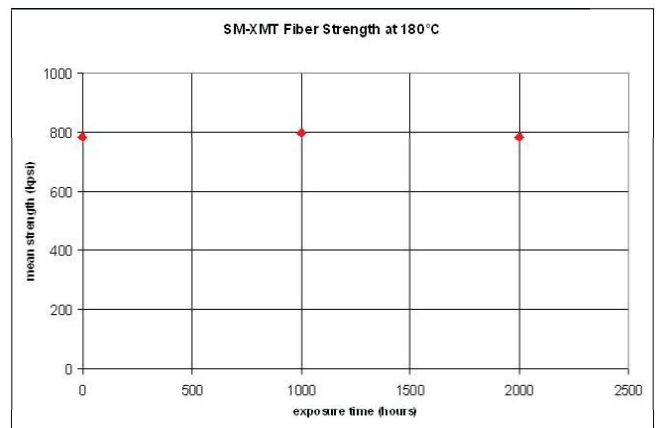
## 165 °C



**Strength of Fiber Aged at 165°C  
(2,900 hours)**

SM-EMT fiber exposed to 165°C then strength tested. Measured according to IEC 60793-1-31; 0.5 meter gauge length; 500mm/min crosshead speed; 50% RH and 22°C.

## 180 °C



**Strength of Fiber Aged at 180°C  
(2,000 hours)**

SM-XMT fiber exposed to 180°C then strength tested. Measured according to IEC 60793-1-31; 0.5 meter gauge length; 500mm/min crosshead speed; 50% RH and 22°C.

# Mechanical

# Corning® Specialty Optical Fiber Suite

		Coating Type (Hermetic Coatings available on all fibers)			
		Standard Acrylate	Mid Temp Acrylate		
		85°C	150°C	180°C	
Glass Type	Standard	Max Operating Temp (°C)			
		Single-mode (Ge-doped core)	SMFHA	SM-MT SMH-MT	SM-XMT SMH-XMT
	Multimode Graded Index (Ge-doped core)	MMFHA	MM50-MT MM50H-MT	MM50-XMT MM50H-XMT	
	Bend Insensitive ClearCurve®	Single-Mode Min Bend Radius = 5mm	SMBIH-5-A	SMBI-5-MT SMBIH-5-MT	SMBI-5-XMT SMBIH-5-XMT
		Single-Mode Min Bend Radius = 7.5mm	SMBIH-7.5-A	SMBI-7.5-MT SMBIH-7.5-MT	SMBI-7.5-XMT SMBIH-7.5-XMT
		Single-Mode Min Bend Radius = 10mm	SMBIH-10-A	SMBI-10-MT SMBIH-10-MT	SMBI-10-XMT SMBIH-10-XMT
		Multimode Graded Index Min Bend Radius = 7.5mm	MM50BIH-A	MM50BI-OM2-MT MM50BIH-OM2-MT	MM50BI-OM2-XMT MM50BIH-OM2-XMT
		Multimode Graded Index Min Bend Radius = 5mm	NA	MM80BI-MT MM80BIH-MT	MM80BI-XMT MM80BIH-XMT
	Higher Band Width	Multimode OM3	NA	MM50BI-OM3-MT MM50BIH-OM3-MT	MM50BI-OM3-XMT MM50BIH-OM3-XMT
		Multimode OM4	NA	MM50BI-OM4-MT MM50BIH-OM4-MT	MM50BI-OM4-XMT MM50BIH-OM4-XMT
	MM	62.5µm Multimode	NA	MM62.5-MT MM62.5H-MT	MM62.5-XMT MM62.5H-XMT
	Other	High Index, Polarization Maintaining, other	AVAILABLE: Inquire for Details		

For more information about Corning's leadership in Specialty Optical Fiber technology visit our website at [www.corning.com/specialtyfiber](http://www.corning.com/specialtyfiber).

To obtain additional technical information, an engineering sample, or to place an order for this product, please contact us at:

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