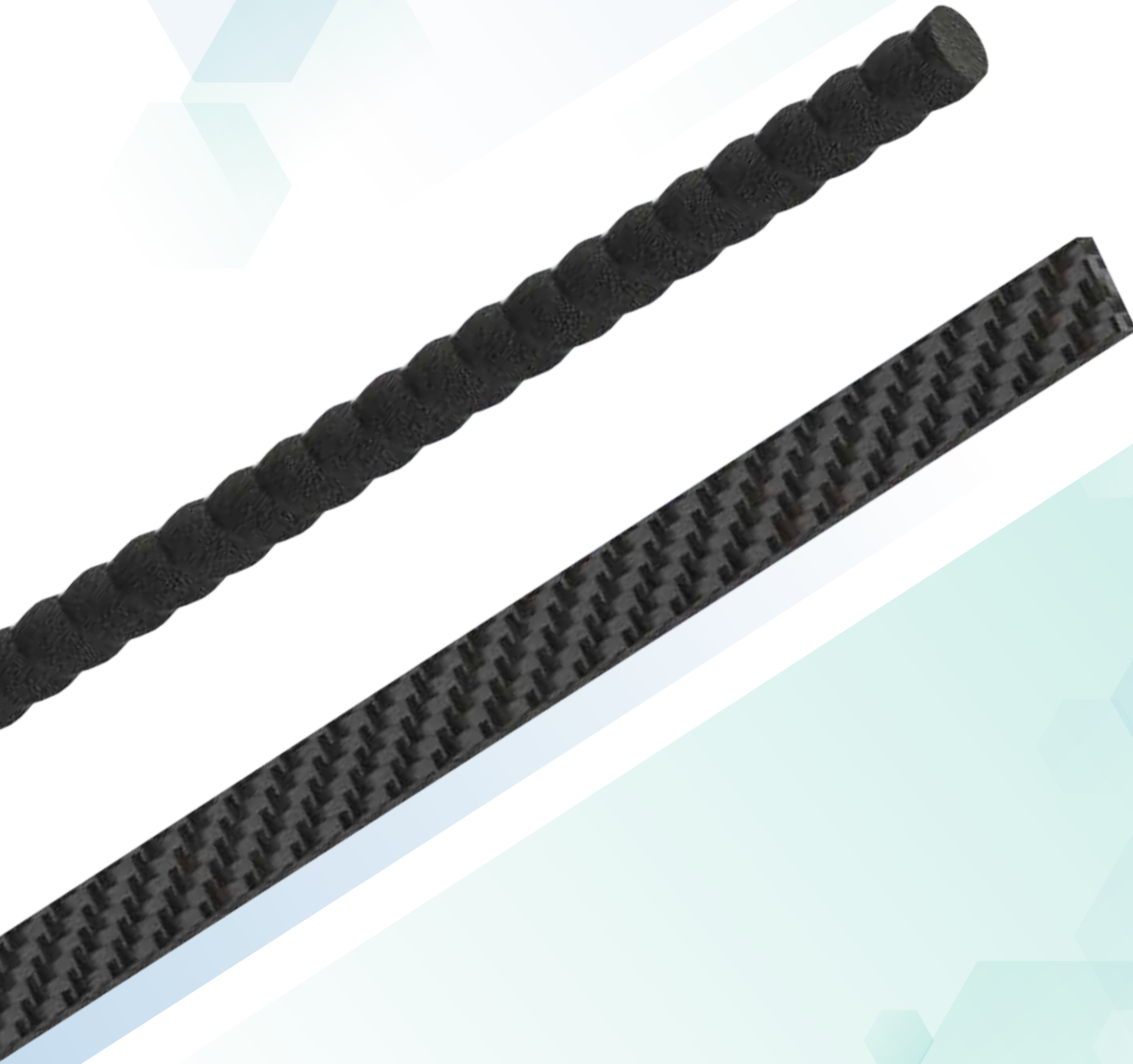


# **ASTEC**

## **Carbon Rod & Tape**

Retrofit structural solutions based on CFRP



**Dextra**

## Presentation

Maintaining and upgrading essential infrastructure is a main concern in all parts of the world: the need for repair and strengthening may arise from deterioration, changes in use, changes in the relevant design codes, structure defects or seismic conditions.

## Key benefits

### Performance

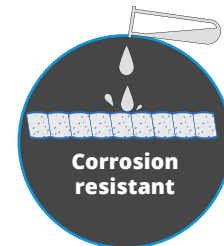
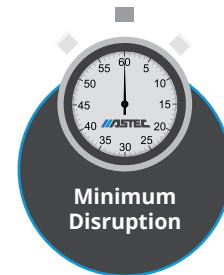
- /// 4 times stronger than steel
- /// 5 times lighter than steel
- /// Aerospace grade performance

### Field Application

- /// Repair and strengthening of wooden and concrete structures

### Flexible installation

- /// Available in custom lengths
- /// Splicing technology: rod to rod, rod to PT strand
- /// Can be installed under all weather conditions



## Standards

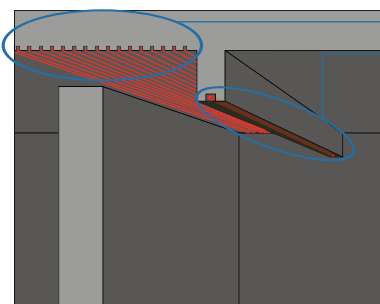
### Design:

- ACI440.2R - 08
- ACI440.7R
- ACI440.4R - 04
- FIB Task Group 9.3

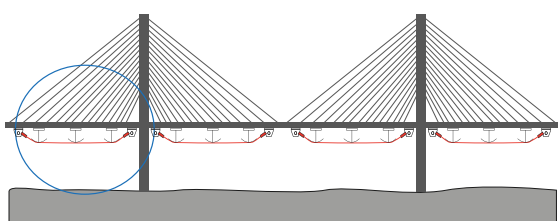
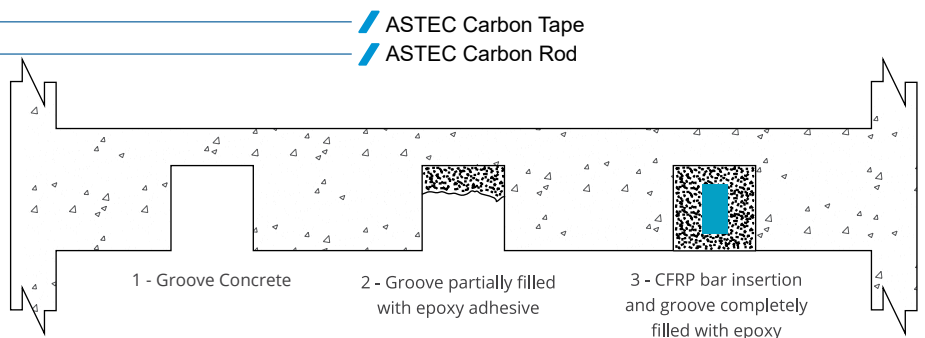
### Testing:

- ACI 440-3R\_12

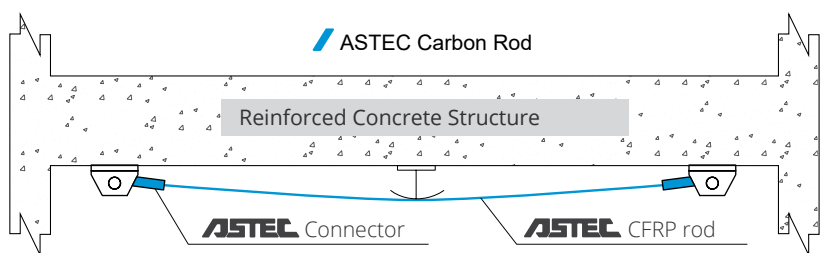
## Applications



Near Surface Mounting (NSM)



Post-Tensioning Reinforcement



## About Carbon Rod

ASTECCarbon Rod provides with non-metallic reinforcing bar having high modulus and tensile strengths. It can be used for both new construction and as a strengthening material for the innovative and proven technique known as «Near Surface Mount» (NSM) strengthening. With a proprietary end anchorage, ASTEC Carbon Rod can be used in un-bonded post tension or pre-stressing applications.

## Product design & concept



## Technical Information

ASTECCarbon Rod

Product reference	Bar Size*		Nominal Diameter*	Nominal cross Sectional Area*	Ultimate Tensile Strength*	Ultimate Tensile Load	Tensile Modulus of Elasticity**	Ultimate Tensile Strain**
	Size	mm						
ASTECCR124-6	#2	6	6.4	31.67	2068	65	124	1.7
ASTECCR124-10	#3	10	9.5	71.26	1896	135	124	1.6
ASTECCR124-13	#4	13	12.7	126.70	1724	218	124	1.5

\*As per ASTM A615/615M. Table 1 // \*\*As per ASTM 7205 - 06

## About Carbon Tape

ASTECCarbon Tape is a pultruded rectangular bar with a coarse surface texture on each wide face to enhance the bonding. This innovative technique is used for structural strengthening of concrete, masonry or timber elements.

## Product design & concept



## Technical Information

ASTECCarbon Tape

Product reference	Tape Thickness	Tape Width	Nominal cross Sectional Area	Ultimate Tensile Strength	Ultimate Tensile Load	Tensile Modulus of Elasticity	Ultimate Tensile Strain
	mm	mm					
ASTECCT124-2	2	16	31.2	2068	64	124	1.7
ASTECCT124-4	4.5	16	71.3	1,965	140	124	1.5



Galaxy Hotel, Macau, China



Burj Khalifa, Dubai, UAE



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in more than  
**55** countries



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