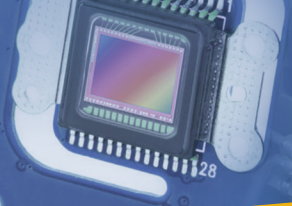


PRODUCT BRIEF

lightPort; high-NA, silica-core fiber

introduction:

Enable Inc., offers custom-sizes of a high-NA fiber with an all silica core and a hard polymer cladding.

The fiber features a large core diameter for easy handling and high coupling efficiency to LED and laser sources. The special low index polymer cladding provides high temperature stability for fast and easy connectorization. In addition this fiber features a protective fluorinated Polymer layer around the core glass for deployment in a wide wavelength range.

Core sizes can vary from 50µum to over 500µm. Cladding and buffer thickness can also be customized.

Removal of buffer is recommended with mechanical means only. Use a NoNik®, Augat or similar fiber stripper with the right-size cutter blades.

For those experienced with assembling and terminating fiber, Aceton may also be used to strip the buffer. But care must be taken to not damage the cladding layer underneath.

The high NA fiber is proof tested 100% off line to 95kPSI.

Recommended long term storage applied stress is at 30kPSI.

product features:

- large diameter core.
- low-index polymer cladding, resulting in high-NA output.
- hard polymer cladding.
- custom sizes.

product benefits:

- easy light coupling, and high-damage threshold.
- high numerical aperture and resultant acceptance angle.
- good cleavability, enable fast and efficient connectorization.

product specifications: ENA-10043-AS

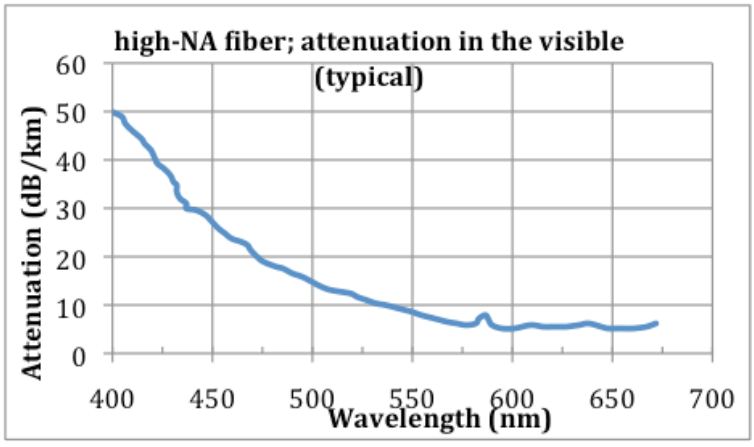
optical and geometrical:

type	step index	full acceptance angle	85°
core	all silica	attenuation coefficient @550nm[1]	≤ 10 dB/km
clad	fluorinated polymer		
buffer	fluoroacrylate	**mechanical:**	
NA	0.675 ±0.02	output video port[2]	95 kPSI

1 typical value. See also plot below for typical values of attenuation coefficient in the visible spectrum.

2 proof testing is performed off line.

Attenuation performance in the visible range (400nm – 675nm) is shown below:



part number and configuration ordering information:

high NA fiber Part Number: ENA-10043-AS

configuration: CR-CL-BF□□□ / □□□ / □□□ / - B□

- □□□ — core diameter in microns
- □□□ — clad diameter in microns
- □□□ — buffer diameter in microns
- B□ — buffer type. For now only 1

For example Part Number **ENA-10043-AS** with Configuration **CR-CL-BF 165/180/200-B1**, is a 165/180/200µm core/clad/buffer diameter fiber with fluoroacrylate buffer.
NOTE: Typically the clad diameter is 15µm to 20µm (depending on the size of the core) larger than the core diameter. The buffer diameter is approximately 20 µm larger than the clad diameter.

Please contact us for all your imaging needs and more detailed data sheets.