

NYACOL® NYAGRAPH FP Expandable Graphite Flame Retardant

Nyacol NYAGRAPH FP is an intumescent flame retardant that offers the following advantages:

- Halogen-free
- Low smoke
- Non-dripping
- Reduced heat release
- Lower in toxic gases
- Insulating

NYAGRAPH FP is a natural material based on processed graphite ore.

The ore is treated with sulfuric acid in what is called an intercalation process.

The material is washed and neutralized to prevent corrosion of metal parts when processed by the user.

Excessive shear should be avoided.

NYAGRAPH FP may be used in polyurethanes, sealants, bitumens, rubbers, adhesives, coatings, and polymers.

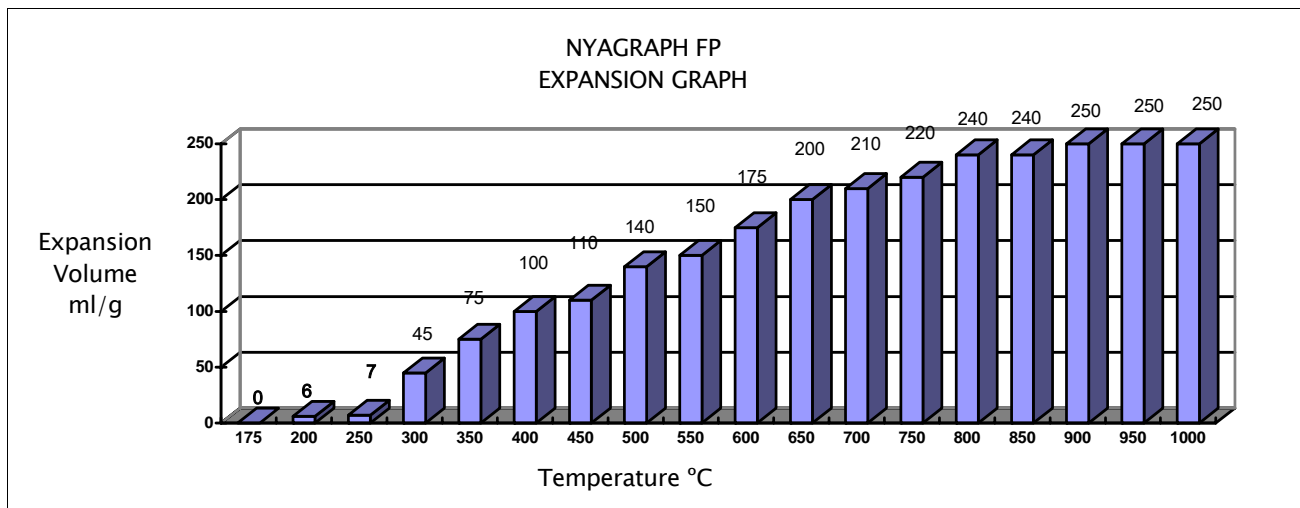
NYAGRAPH FP may also be used in conjunction with other flame retardants to provide improved flame-retardant and smoke-suppressant properties to a material.

TYPICAL PROPERTIES

Particle Size, % 50 mesh:	Min. 80
Appearance:	Soft black particles
pH:	6 – 7
Onset Temperature, °C:	170 – 190
Expansion Volume, cm ³ /g:	≥ 230
Moisture, %:	0.2 – 0.8
Purity, %:	≥ 95.0
Specific Gravity, g/cm ³ :	2.1 – 2.3
Bulk Density, g/cm ³ :	0.55 – 0.75
Free Acid, mg/g NaOH:	Max. 1.0

TYPICAL PARTICLE SIZE DISTRIBUTION, %

Over 840µm	0.2
840µm – 710µm	0.8
710µm – 630µm	1.2
630µm – 500µm	10.8
500µm – 425µm	1
425µm – 355µm	51
355µm – 300µm	16



FOR ADDITIONAL INFORMATION OR TO PLACE AN ORDER

Nyacol Nano Technologies, Inc.
Megunko Road ~ P.O. Box 349
Ashland MA 01721-0349 U.S.A.

Telephone: 508-881-2220 Local Area
800-438-7657 Toll-Free
Fax: 508-881-1855

Information herein is accurate to the best of our knowledge. Suggestions are made without warranty or guarantee of results. Before using, user should determine the suitability of the product for the intended use and user assumes risk and liability in connection therewith. We do not suggest violation of any existing patents or give permission to practice any patented invention without a license. 071220