

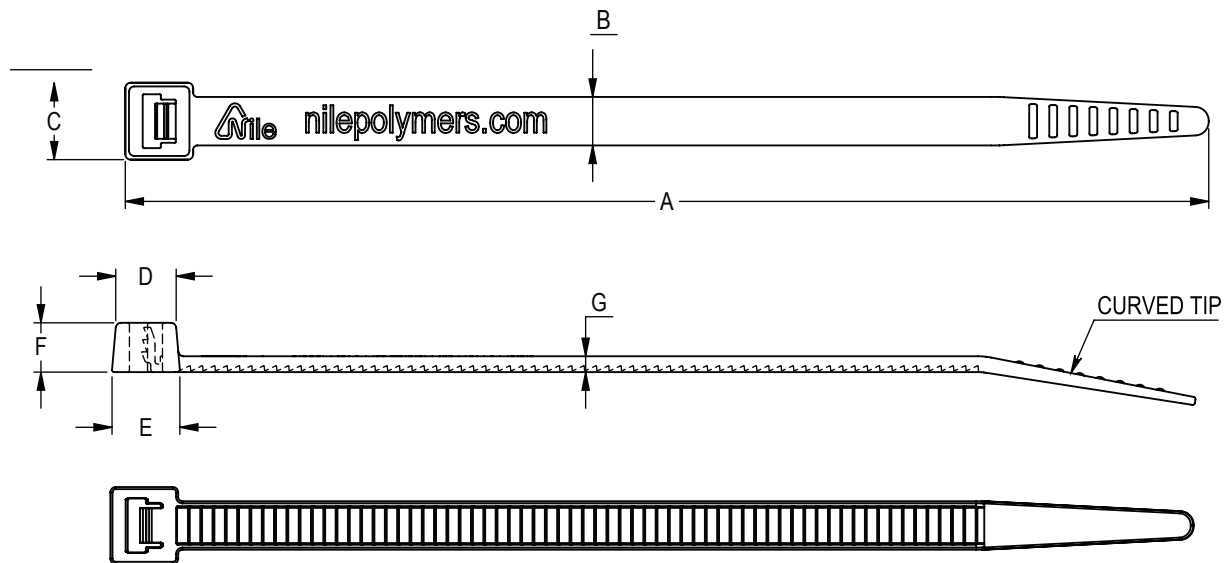
Strong-Ty™ Kynar® PVDF Cable Ties

Strong-Ty™ cable ties made from Kynar® PVDF are ideal for environments where combinations of high temperature, chemical attack, radiation or mechanical stress limits other materials. These cable ties are durable and resist abrasion and mechanical damage during and after installation. With minimal flame-spread and smoke-generation, Strong-Ty™ cable ties meet the National Electrical Code (NFPA-70A) and UL94V-0 requirements for installation in building plenum.

Excellent resistance to radiation allows sterilization of Strong-Ty™ cable ties for high-purity applications without loss of strength or flexibility. Our Strong-Ty™ cable ties are injection molded and packaged in the US in a clean room according to ISO 13485 procedures. Made with one-piece construction and a curved tip, Strong-Ty™ cable ties are easy to use and provide consistent and reliable performance.

Specifications

Part Number	NPC204NI, NPC208NI	Width (mm)	4.5
Material	Kynar® PVDF	Maximum Bundle Diameter (inch)	1.96
Application	PV Wire Management	Maximum Bundle Diameter (mm)	50
Color	Natural	Minimum Bundle Diameter (inch)	0.196
UL 62275	Type 21	Minimum Bundle Diameter (mm)	5
Flammability Rating (UL 94)	V-0	Operating Temperature Range (F)	-13 to 257
UV Resistant	Yes	Operating Temperature Range (C)	-25 to 120
Cable Length (inch)	4 / 8	Tensile Strength (lbs)	48
Cable Length (mm)	101.6 / 203	Tensile Strength (N)	214
Thickness (inch)	0.059	Plenum Rated	Yes
Thickness (mm)	1.5	RoHS Compliant	Yes
Width (inch)	0.179	Units per bag	500



A	B	C	D	E	F	G	BUNDLE DIAMETER		BREAKING STRENGTH
							MIN.	MAX.	
in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	lbs (N)
4.0 (102)	0.179 (4.5)	0.285 (7.25)	0.22 (5.6)	0.25 (6.4)	0.182 (4.6)	0.059 (1.5)	0.13 (3.3)	1.0 (25)	48 (214)
8.0 (203)	0.179 (4.5)	0.285 (7.25)	0.22 (5.6)	0.25 (6.4)	0.182 (4.6)	0.059 (1.5)	0.13 (3.3)	2.0 (51)	48 (214)

Kynar® PVDF Material Properties			
Physical Properties	Standards	Units	Results
Refractive Index	ASTM D542	-	1.42
Specific Gravity	ASTM D742	-	1.77 - 1.80
Water Absorption	ASTM D570	%	0.03 - 0.05
Mechanical Properties			
Flexural Strength at 5% Strain	ASTM D790	psi	3,000 - 5,000
Flexural Modulus	ASTM D790	psi	150,000 - 180,000
Tensile Yield Elongation	ASTM D638	%	5 - 15
Tensile Yield Strength	ASTM D638	psi	4,500 - 6,000
Tensile Break Elongation	ASTM D638	%	30 - 200
Tensile Break Strength	ASTM D638	psi	4,000 - 7,000
Tensile Modulus	ASTM D638	psi	150,000 - 220,000
Deflection Temperature	ASTM D648 at 66 psi	°F	140 - 167
Hardness	ASTM D2240	Shore D	70 - 75
Thermal Properties			
Melting Temperature	ASTM D3418	°F	311 - 320
Thermal Conductivity	ASTM D433	BTU-in/hr.ft² F	1.0 - 1.25
Electrical Properties			
Dielectric Strength	ASTM D149	KV/mil	1.3 - 1.6
Volume Resistivity	ASTM D257	ohm-cm	2 x 10 ¹⁴
Flame and Smoke Properties			
Burning Rate	UL/Bulletin 94	-	V - O
Limiting Oxygen Index	ASTM D2868	% O ₂	43/75

Kynar® PVDF Chemical Resistance		
Chemical	Concentration	Maximum Temperature °F
Acetic Acid	50% in water	200
Acetone		Not Recommended
Brine		275
Bromine, liquid		150
Chlorine, liquid		175
Chromic Acid	Up to 40% in water	175
Hydrochloric Acid	Up to "concentrated"	275
Hydrofluoric Acid	41 - 100%	200
Nitric Acid	11 - 70% in water	150
Phosphoric Acid	Less than 85% in water	275
Sulfuric Acid	Up to 60% in water	250



Strong-Ty™ Kynar® PVDF Cable Ties are manufactured in the USA by Nile Polymers, Inc.
 Contact us at (801) 203-3756 or sales@nilepolymers.com | www.nilepolymers.com

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