

Radiflam® A AEK 121 C NAT 2025

Technical DataSheet | Supplied by RadiciGroup

RADIFLAM A AEK 121 C NAT 2025 by Radici is a natural colored, self-extinguishing, halogenated, flame retardant polyamide 66 (PA 66) grade. Exhibits excellent mechanical properties, wear resistance, low friction coefficient, high melting point, good impact strength, high fatigue resistance, good moldability, fast molding cycles and good surface finish. Also exhibits high levels of hardness, tensile strength and resistance to compression, abrasion & torsion. Also, it is resistant to organic solvents, hydrocarbons, oils & fats (vegetable, animal & mineral), salt solutions, ketones, esters, alcohols, petroleum products, lubricants and fuel oils. It can be processed using injection molding. Manufactured parts possess good electrical properties and colorability. Recommended for appliances, electrical/electronic industry and technical-industrial applications. RADIFLAM A AEK 121 C NAT 2025 by Radici is RoHS compliant 2002/95/CE and rated V-0 according to UL-94.

Product Type	PA (Polyamide, Nylon) > PA 66 (Nylon 66)
Appearance	Natural
Product Status	COMMERCIAL
Applications/ Recommended for	Appliances Electrical markets Electronics / Computers Injection molding - thermoplastics
Labels/Agency Rating	RoHS Compliant 2002/95/CE UL94 V-0 Flame Class Rating
Key Features	Abrasion resistance, Good Alcohol Resistant Colorability, Good Electrical Properties, Good Extinguishing, Self Fatigue Resistant Flame retarded Friction, Low Fuel Resistant Gasoline Resistance Flame retarded, Halogen based Hardness, High Hydrocarbon Resistant Impact Resistance, Good Moldability, Good Cycle Time, Short Oil Resistant Solvent Resistant Surface Finish, Good Tensile Strength, High Wear resistance, Good

Radiflam® A AEK 121 C NAT 2025 Properties

Physical	Value & Unit	Test Condition	Test Method
Density	1350 kg/m ³		ISO 1183
Moisture Absorption	1.5 %	At 23°C, 50% RH, 2 mm	ISO 62
Water Absorption	6.5 %	At 23°C, Immersion, 2 mm	ISO 62

Mechanical	Value & Unit	Test Condition	Test Method
Nominal Tensile Strain at Break	20 %	50 mm/min	ISO 527-2
Tensile Modulus	3100 MPa	At 1 mm/min	ISO 527-2
Tensile Strength, Yield	55 MPa	At 50 mm/min	ISO 527-2
Flexural Modulus	3000 MPa	At 2 mm/min	ISO 178
Flexural Strength	80 MPa	At 2 mm/min	ISO 178
Impact Strength, Notched Charpy	5 kJ/m ²	At 23 °C	ISO 179/1eA

Thermal	Value & Unit	Test Condition	Test Method
Melting Point	260 °C	At 10°C/min	ISO 11357-3
Heat Deflection Temperature (HDT), Unannealed	85 °C	At 1.80 MPa	ISO 75-2/A
Heat Deflection Temperature (HDT), Unannealed	180 °C	At 0.45 MPa	ISO 75-2/B

Vicat Softening Temperature	205 °C	At 50°C/h, B (50N)	ISO 306 2
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Flammability	Value & Unit	Test Condition	Test Method
Flame Rating, UL 94	V-0	At 0.8 mm	UL 94
Automotive Interior Flammability	0 mm/min		FMVSS302
Glow Wire Flammability Index (GWFI)	960 °C	At 1mm	DIN EN 60695-2-12
Glow Wire Ignition Temperature (GWIT)	> 775 °C	At 1mm	IEC 60695-2-1/3

Electrical	Value & Unit	Test Condition	Test Method
Volume Resistivity	1 E+13 ohm-m	At 500 V	IEC 60093
Surface Resistance	1 E+12 ohm	At 500 V	IEC 60093
Comparative Tracking Index (CTI)	300 V	Solution A	IEC 60112

Radiflam® A AEK 121 C NAT 2025 Processing Guidelines

Injection Molding	Value & Unit	Test Condition	Test Method
Processing (Melt) Temp	270 - 290 °C		
Drying Temperature	80 °C		

Mold Temperature 60 - 80 °C

Drying Time 2 - 4 h

Suggested Max Moisture 0.10 %

Dew Point of the Dryer < -20 °C

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