

POLYMER SOLUTIONS

ALM PA 603-CF on P3 NEXT

Process Data Sheet

Process Information Polymer

ALM PA 603-CF ON P3 NEXT

Product Description

The 33% Carbon-Fiber-Filled Nylon 12 achieves superior mechanics and surface quality with a black surface finish. It is suitable for various racing applications and wind tunnel model testing, making it a highly recommended material for formula 1.

MAIN CHARACTERISTICS

High-Detail Black Surface Finish
Good Stiffness and Mechanical Properties
Warping Resistance at Elevated Temperatures

TYPICAL APPLICATIONS

High-performance impact sports equipment and racing applications
Industrial applications with an HDT of ~177° C
Wind tunnel model testing

MECHANICAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD	DRY / CONDITIONED	UNIT	TEST STANDARD
Tensile Modulus			ISO 527-1/-2			ASTM D638
X Orientation	8000 / -	MPa		8600 / -	MPa	
Y Orientation	4200 / -	MPa		4200 / -	MPa	
Z Orientation	2900 / -	MPa		3000 / -	MPa	
Tensile Strength			ISO 527-1/-2			ASTM D638
X Orientation	85 / -	MPa		85 / -	MPa	
Y Orientation	60 / -	MPa		60 / -	MPa	
Z Orientation	42 / -	MPa		37 / -	MPa	
Elongation at Break			ISO 527-1/-2			ASTM D638
X Orientation	3,8 / -	%		3,5 / -	%	
Y Orientation	6,1 / -	%		4,4 / -	%	
Z Orientation	3,5 / -	%		3,0 / -	%	
Shore D Hardness			ISO 7619-1	-	-	-
X Orientation	83 / -	-				

OTHER PROPERTIES	VALUE	UNIT	TEST STANDARD
Powder Color	gray	-	-
Components Color	black	-	-

HEADQUARTERS

EOS GmbH
Electro Optical Systems

Robert-Stirling-Ring 1
82152 Krailling / Munich
Germany

Tel.: +49 89 893 36-0
Email: info@eos.info
URL: www.eos.info

This powder has not been developed, tested or certified as a medical device according to Directive 93/42/EEC (MDD) or Regulation (EU) 2017/745 (MDR) and is not intended to be used as a medical device, in particular for the purposes specified in Art. 2 No. 1 MDR. Insofar as you intend to use the powder as raw material for the manufacture of pharmaceutical products or medical devices (e.g. as raw material which as a material must meet the requirements of Annex 1, Chapter II MDR), the responsibility and liability for all analyses, tests, evaluations, procedures, risk assessments, conformity assessments, approval and certification procedures as well as for all other official and regulatory measures required for this purpose shall lie solely with you both with regard to the pharmaceutical product and/or medical device manufactured by you and with regard to the properties, suitability, testing, evaluation, risk assessment, other requirements for use of the powder as raw material. In this respect, the limitations of liability pursuant to our General Terms and Conditions and the system sales or material contracts shall apply.

Part properties are provided for information purposes only and EOS makes no representation or warranty, and disclaims any liability, with respect to actual part properties achieved. Part properties are dependent on a variety of influencing factors and therefore, actual part properties achieved by the user may deviate from the information stated herein. This document does not on its own represent a sufficient basis for any part design, neither does it provide any agreement or guarantee about the specific properties of a material or part or the suitability of a material or a part for a specific application.

The achievement of certain part properties as well as the assessment of the suitability of this material for a specific purpose is the sole responsibility of the user. Any information given herein is subject to change without notice.

Status as of 30.08.2026. Subject to technical modifications. EOS is certified according to ISO 9001.

EOS®, Additive Minds®, Alumide®, AMQ®, CarbonMide®, DirectMetal®, DMLS®, EOSAME®, EOSINT®, EOSIZE®, EOSPACE®, EOSPRINT®, EOSTATE®, EOSTYLE®, FORMIGA®, LaserProFusion®, PA 2200®, PrimeCast® and PrimePart® are registered trademarks of EOS GmbH Electro Optical Systems in some countries. For more information visit www.eos.info/trademarks.