

# GRAPHITE and CARBON Grades For Conductive Plastic and Polymer Applications

In response to the demand for graphite and carbon products for the manufacture of conductive polymers, Asbury Graphite Mills, Inc. has selected a few grades of high performance natural and synthetic graphite, as well as carbon fibers, and conductive carbon black recommended as starting materials. Grades were selected based on electrical properties, molding characteristics, resin compatibility, and availability

Type	Carbon Content (min)	Typical Size	Surface Area (m <sup>2</sup> /gram)	Typical Resistivity (Ohm-cm)
<b><i>Natural Flake</i></b>				
3243	99	60% -325 mesh	3.0	0.036
230U	99	20 micrometer	6.5	0.068
5601	99	12-15 micrometer	7.0	0.066
Micro 850	99	3-5 micrometer	13.0	0.088
3442	95	3-4 micrometer	14	0.06
<b><i>Surface Enhanced Flake</i></b>				
3775	96	5-10 micrometer	24	
<b><i>Synthetic</i></b>				
4012	99	60 x 325 mesh	1.5	0.03
A60	99	60% -325 mesh	3.0	0.036
A99	99	20 micrometer	6.5	0.047
4437	99	12-15 micrometer	11.5	0.058
Micro 450	99	3-7 micrometer	17	
4934	99	4-7 micrometer	25	
<b><i>Synthetic:TC Series</i></b>				
TC 303	99	20 micrometer	6	
TC 301	99	8 micrometer	11	
<b><i>Surface Enhanced Synthetic</i></b>				
4827	99	nominal 2 micrometer	113	0.1842*
<b><i>Fibers</i></b>				
PAN AGM 94	94	1/8" and 150 micrometer	0.93 / 0.99	0.0014 (Axial)
PAN AGM 99	99	150 micrometer	1.87	0.0014 (Axial)
PITCH AGM 95	94	1/8" and 400 micrometer	0.93 / 0.96	0.0068 (Axial)
<b><i>Carbon Black</i></b>				
5303	99	30 nm	254	.341*

\*Note that that this value represents the electrical conductivity of a pure powder compact of this material. This value should not be used to evaluate this products effectiveness as conductive filler.

- ◆ Asbury will tailor any of our raw materials to fit your needs.
- ◆ Asbury will blend materials together for your requirements.



**Asbury Graphite Mills, Inc.**

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