

# organicblack™ PLASTIC APPLICATIONS

**Aemerge's Organic Black™ is a pallet wood derived, high quality carbon.** It is available in a powder (D50:5 micron), proven dispersible in master-batch form, and is typically available FOB Fortville, IN in 1000 lb. plus super-sacks.

## Plastic Performance Characteristics

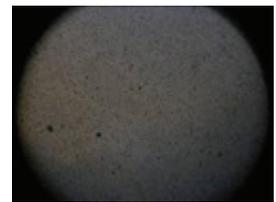
Organic Black carbon has been rigorously tested by nationally recognized independent laboratories, and meets or exceeds the following specifications:

ATTRIBUTE	ASTM TEST	VALUE
Fixed & Total Carbon	D3175, D3172	~87%
Sulphur	D4239(A)	≤ .7%
Ash	D3174	~10%
Absence of 313 Compounds	D3682; others	Pass

Organic Black, with carbon of 87+%, has been shown to be mixable with traditional carbon black and then used in a variety of black coloration applications.

## Plastics Applications

Organic Black's dispersion can contain anywhere from 5% to 50% of our carbon (organic black or codex black), mixed with commodity or specialized traditional petroleum based carbon blacks (e.g., N762), depending upon application. Such dispersion have been shown to work in aqueous inks, pigments for latex and acrylic paints (using what are considered to be typical industry emulsifiers and/or surfactants), and in plastics (molded parts up to 50:50 blend in a 2% let down and in thicker bag applications).



(1% let-down shown)

Our carbons can also be the single coloration pigment for a new line of various shades of gray in all the above application areas.

## UV Color Retention

After 500 hours of Color Testing using a Xenon Arc Machine, there was also no discernible difference in hue and depth.

As shown in the Tensile Properties Table, there is also no meaningful difference in tensile properties within the normal testing error range.

TENSILE PROPERTIES (% RETENTION)	100% N762	80/20 AEMERGE
Tensile Stress at Yield	104	105
Elongation at Yield	115	109
Tensile Stress at Break	95	79
Elongation at Break	95	77
Modulus of Elasticity	101	105

### Organic Black Availability

Organic Black is not nor will be on allocation, so an adequate supply at reasonable prices can be assured for the long term, and *its regulatory & environmental status is favorable compared to all others.*

### Production Consistency

Aemerge's UL certified Quality Management System test results show Organic Black's consistent long term production meets or exceeds our product's specifications.

### Organic Carbon Certifications

Organic Black has been certified as safe for human water and food preparation use as shown in the table below. It has also passed EPA 313 analyses & non-presence of metals tests.

CERTIFICATION	TESTED FOR	RESULTS
USP Food Chemical Codex (FCC) FDA approval to market	Use in food preparation passed	FCC passed; FDA listed in process
UL Water Media Certification AWWA compliance	NSF 61 compliance & QMS Standards compliance QMS	UL Pass; AWWA Yes
USDA bio-preferred product & certified organic programs	Sourcing qualifications	USDA Listed; certification in process

### Your Acceptance Testing

Call us to arrange the delivery of a sample for your use in analyzing the wide ranges of use of Organic Black in your black coloration situation +1 (317) 500-0295.