

# ADVANCENE™ EEB-4916-AAH

## Medium Density Polyethylene Resin

### Overview:

ADVANCENE™ EEB-4916-AAH is a black compounded hexene based medium density polyethylene classified as (PE80 -Black), material with an optimum balance between flexibility and strength, produced with advanced gas phase PE process. Long-term stability is ensured by an optimized stabilization system.

### Main Characteristics:

ADVANCENE EEB-4916-AAH is recommended for pressure pipe systems in the applications field of drinking water, natural gas, pressure sewerage, relining, sea outfall and industrial, where flexibility and coil ability is of importance. It also shows excellent resistance to rapid crack propagation and slow crack growth. Thanks to the structure, which gives outstanding extrudability.

### Complies with:

ISO 12162: PE-80 Black compounded.

Physical (Compounded Material)	Nominal Value (SI)	Test Method
Density	0.949 g/cm <sup>3</sup>	ASTM D1505, ISO1183
Melt Index (190°C/21.6 kg)	16 g/10min	ASTM D1238, ISO 1133
Mechanical (Compounded Material)	Nominal Value (SI)	Test Method
<b>Tensile Strength</b>		
Yield	20 MPa	ASTM D638 <sup>1</sup> , ISO 527
Break	32 MPa	
<b>Tensile Elongation</b>		
Break	>800 %	ASTM D638 <sup>1</sup> , ISO 527
Flexural Modulus – 1% Secant	670 MPa	ASTM D790B <sup>1</sup> , ISO 178
OIT (at 210°C)	≥ 20 Min	ISO 11357-6
Carbon Black Content (Grade)	≥ 2 %	ASTM D1603, ISO 6964
Carbon Dispersion (Grade)	< 3	ISO 18553
Carbon Dispersion (Rate)	A1	ISO 18553
Moisture Content	<300 PPM	ISO 15512
Pipe Properties	Nominal Value (SI)	Test Method
Designation	PE-80 Black	ISO 12162
Minimum Required Strength	>8 MPa	ISO 9080

## Pipe Extrusion Conditions

The actual extrusion conditions will depend on the type of equipment used and the size and wall thickness of the pipe required. The following conditions should be used as a guide when starting up the extruder.

Cylinder 180 - 210°C

Head 200 - 210°C

Die 200 - 210°C

Melt temperature 200 - 210°C

Due to the hygroscopic nature of carbon black, this compound is sensitive to moisture. Storage for a long time or under unfavorable conditions will increase the moisture content. For normal conditions and applications, we recommend preheating and drying for minimum 1 hour with a maximum preheat temperature of 90°C.

### Notes:

1 Method B

### Availability:

This product is supplied in 25 kg bags in secured pallets of 60 bags (1.500 MT net). It is also supplied in jumbo bags of 1000 kg capacity.

### Storage:

The product should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product. More information on storage can be found in Safety Information Sheet for this product.

### Safety:

The product is not classified as a hazardous mixture. Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required. A Safety Information Sheet is available on request. Please contact your ETHYDCO representative for more details on various aspects of safety, recovery, and disposal of the product.

### RECYCLING:

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

### Related DOCUMENTS:

Most datasheets and statements are available on ETHYDCO website [www.ethydco-eg.com](http://www.ethydco-eg.com). If more information is required, please contact a ETHYDCO representative for information.

**Disclaimer:**

**The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.**

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

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**It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe, and legal use, processing and handling of our products.**

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