

# Valve Regulated Expanders

## PRODUCT TECHNICAL DATA

### USES:

Telecommunications, Uninterruptible Power Supplies, Security/Lighting, Motive Power and Solar Energy.

### DESCRIPTION:

Formulated to provide outstanding battery performance over a wide range of discharge rates and temperatures.

### PHYSICAL PROPERTIES:

Odor..... Vanilla or wood pulp like  
 Color..... Grey to Black  
 Consistency..... Powder  
 Addition to Paste Mix..... Dry  
 Density..... Varies by formula

### BAG SIZES AND WEIGHT RANGES:

Small..... 6 lbs. – 13.2 lbs.  
 Medium..... 12 lbs. – 27.9 lbs.  
 Large..... >18 lbs.

### SELECTION GUIDE:

Application	Expander Type	Composition	Ash Content	Addition Rate
Telecommunications UPS Security/Lighting Motive Power Solar Energy	HE-120	Blanc Fixe Carbon Black Sodium Lignosulfonate	77.8 ± 5.0%	2.00%
	HE-150 VA; & G	Blanc Fixe Carbon Black Sodium Lignosulfonate	50.1 ± 5.0%	2.00%
	HE-1160; H	Blanc Fixe Carbon Black Sodium Lignosulfonate	72.7 ± 5.0%	1.00%
	HE-KXLF	Blanc Fixe Carbon Black Sodium Lignosulfonate	84.6 ± 2.5%	2.00%

### IMPURITIES:

Element	Typical (ppm)	Maximum (ppm)
Iron	100	200
Copper	100	170
Nickel	5	10
Manganese	5	10



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