

Technical Data Sheet



E113

Packaged, Booster Sensitive Emulsion

Description

E113 is a small diameter booster sensitive emulsion product. It ranges in diameters from 50 mm (2 in.) to 90 mm (3.5 in.). This booster sensitive product is cuttable and is formulated as a doped emulsion that incorporates microspheres as a sensitizer to ensure reliability in difficult shooting situations. It performs very reliably in general wet-hole blasting conditions.

Benefits

Some of the primary advantages of this product include:

- Holds its shape in storage and is cuttable to suit a variety of explosive applications
- Reliable high energy output in a variety of shot conditions
- Excellent water resistance
- Outstanding low temperature sensitivity

Features

E113 emulsion has the following characteristics:

- Perfect for general construction and quarry operations
- Suitable for underground use
- Possesses the favorable handling characteristics of a watergel

Properties

Property	E113 75 x 400mm (3x 16 in)
Cartridge Density (g / cc)	1.26 – 1.30
Typical Velocity of Detonation* * unconfined @ 5°C (41°F)	5,180 m/s 16,994 ft/s
Water Resistance	Excellent
Fume Class	1
Relative Weight Strength (RWS)	173
Relative Bulk Strength (RBS)	109

Priming

Use in direct contact with the largest possible diameter detonator sensitive explosive or an appropriately sized Pentex™ booster.

Warning: *Detonating cord may adversely affect the performance of E113 and could result in misfires. Consult a Hollowell Mfg. LLC representative before attempting to use with detonating cord.*

Packaging

E113 is packaged in high strength, tear resistant film cartridges that are packed into 25 kg (55 lb) fiberboard cartons. The product is currently offered in the following sizes:

Diameter x Length (mm)	D x L (inches)	Avg Weight kg / Cartridge lb	Avg # Cartridges per carton
50 x 400	2 x 16	1.04 / 2.29	24
65 x 400	2 ½ x 16	1.62 / 3.57	15
70 x 400	2¾ x 16	1.96 / 4.32	13
75 x 400	3 x 16	2.34 / 5.15	11
90 x 400	3½ x 16	3.18 / 7.00	8

Notes:

- The "Relative Effective Energy" (REE) of an explosive is the energy calculated to be available to do effective blasting work. All energy values are calculated using the **IDeX™** computer code owned by Orica for the exclusive use of its companies. Energy values are based on standard ANFO with a density of 0.84 g/cc and a cutoff pressure of 100 MPa. Other computer codes may give different values.

Shelf Life

One year from date of manufacture when stored properly in an approved well ventilated explosives magazine.

Storage

Booster sensitive **E113** is best stored at temperatures above -15°C (+5°F). This is especially important in cold weather "load and shoot" worksites where there is insufficient in-hole warm-up time.

Before it can be used with pneumatic cartridge-loading equipment, the internal temperature of **E113** should be 0°C (32°F) or higher.

For recommended good practices in transporting, storing, handling, and using this product, refer to the "Always and Never" booklet packed inside each carton.

Temperature Characteristics

Fresh product is reliable down to -10°C at 65 mm (2½ in.) primed in confinement with a 454 g (1 lb) cast booster.

Hazardous Materials Shipping Description

Explosive, Blasting, Type E
Class and Division 1.5D
UN 0332
EX 2005010256

3600 NW 74th Street

Columbus, KS 66725-0348

(620) 597-2552

(620) 597-2905 fax

<http://www.slurryexplosive.com/>

1/07/2007

Technical Data Sheet



E113

Packaged, Booster Sensitive Emulsion

Disclaimer

The information contained herein is based on experience and is believed to be accurate and up to date as at the date of its preparation. However, uses and conditions of use are not within the manufacturer's control and users should determine the suitability of such products and methods of use for their purposes. Neither the manufacturer nor the seller makes any warranty of any kind, express or implied, statutory or otherwise, except that the products described herein shall conform to the manufacturer's or seller's specifications. The manufacturer and the seller expressly disclaim all other warranties, INCLUDING, WITHOUT LIMITATION, WARRANTIES CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Under no circumstances shall the manufacturer or the seller be liable for indirect, special, consequential, or incidental damages including, without limitation, damages for lost or anticipated profits.

Warning: *Carbon monoxide and carbon dioxide may migrate through the ground after detonation of explosives. Consult an SEC representative for specific applications.*

3600 NW 74th Street

Columbus, KS 66725-0348

(620) 597-2552

(620) 597-2905 fax

<http://www.slurryexplosive.com/>

1/07/2007

Technical Data Sheet



E113A

Packaged, Booster Sensitive Emulsion

Description

E113A is a small diameter booster sensitive emulsion product. It ranges in diameters from 50 mm (2 in.) to 90 mm (3.5 in.). This booster sensitive product is cuttable and is formulated as a doped emulsion that incorporates microspheres as a sensitizer to ensure reliability in difficult shooting situations. It performs very reliably in general wet-hole blasting conditions. It is further enhanced with the addition of aluminum for added energy.

Benefits

Some of the primary advantages of this product include:

- Holds its shape in storage and is cuttable to suit a variety of explosive applications
- Reliable high energy output in a variety of shot conditions
- Excellent water resistance
- Outstanding low temperature sensitivity

Features

E113A emulsion has the following characteristics:

- Perfect for general construction and quarry operations
- Suitable for underground use
- Possesses the favorable handling characteristics of a watergel

Properties

Property	E113A 75 x 400mm (3x 16 in)
Cartridge Density (g / cc)	1.26 – 1.30
Typical Velocity of Detonation** unconfined @ 5°C (41°F)	5,120 m/s 16,798 ft/s
Water Resistance	Excellent
Fume Class	1
Relative Weight Strength (RWS)	186
Relative Bulk Strength (RBS)	117

Priming

Use in direct contact with the largest possible diameter detonator sensitive explosive or an appropriately sized Pentex™ booster.

Warning: *Detonating cord may adversely affect the performance of E113A and could result in misfires. Consult a Hallowell Mfg. LLC representative before attempting to use with detonating cord.*

Packaging

E113A is packaged in high strength, tear resistant film cartridges that are packed into 25 kg (55 lb) fiberboard cartons. The product is currently offered in the following sizes:

Diameter x Length (mm)	D x L (inches)	Avg Weight kg / Cartridge lb	Avg # Cartridges per carton
50 x 400	2 x 16	1.04 / 2.29	24
65 x 400	2 ½ x 16	1.62 / 3.57	15
70 x 400	2¾ x 16	1.96 / 4.32	13
75 x 400	3 x 16	2.34 / 5.15	11
90 x 400	3½ x 16	3.18 / 7.00	8

Notes:

- The "Relative Effective Energy" (REE) of an explosive is the energy calculated to be available to do effective blasting work. All energy values are calculated using the **IDeX™** computer code owned by Orica for the exclusive use of its companies. Energy values are based on standard ANFO with a density of 0.84 g/cc and a cutoff pressure of 100 MPa. Other computer codes may give different values.

Shelf Life

One year from date of manufacture when stored properly in an approved well ventilated explosives magazine.

Storage

Booster sensitive **E113A** is best stored at temperatures above -15°C (+5°F). This is especially important in cold weather "load and shoot" worksites where there is insufficient in-hole warm-up time.

Before it can be used with pneumatic cartridge-loading equipment, the internal temperature of **E113A** should be 0°C (32°F) or higher.

For recommended good practices in transporting, storing, handling, and using this product, refer to the "Always and Never" booklet packed inside each carton.

Temperature Characteristics

Fresh product is reliable down to -10°C at 65 mm (2½ in.) primed in confinement with a 454 g (1 lb) cast booster.

Hazardous Materials Shipping Description

Explosive, Blasting, Type E
Class and Division 1.5D
UN 0332
EX 2005010256

3600 NW 74th Street
Columbus, KS 66725-0348

(620) 597-2552
(620) 597-2905 fax

<http://www.slurryexplosive.com/>

Technical Data Sheet



E113A

Packaged, Booster Sensitive Emulsion

Disclaimer

The information contained herein is based on experience and is believed to be accurate and up to date as at the date of its preparation. However, uses and conditions of use are not within the manufacturer's control and users should determine the suitability of such products and methods of use for their purposes. Neither the manufacturer nor the seller makes any warranty of any kind, express or implied, statutory or otherwise, except that the products described herein shall conform to the manufacturer's or seller's specifications. The manufacturer and the seller expressly disclaim all other warranties, INCLUDING, WITHOUT LIMITATION, WARRANTIES CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Under no circumstances shall the manufacturer or the seller be liable for indirect, special, consequential, or incidental damages including, without limitation, damages for lost or anticipated profits.

Warning: *Carbon monoxide and carbon dioxide may migrate through the ground after detonation of explosives. Consult an SEC representative for specific applications.*

3600 NW 74th Street

Columbus, KS 66725-0348

(620) 597-2552

(620) 597-2905 fax

<http://www.slurryexplosive.com/>