SOLAR MINING SERVICES
EXPLOSIVES & ACCESSORIES

TECHNICAL DATA SHEET

BULK EMULSIONS

SURFACE EMULSIONS

SAFETY • QUALITY • RELIABILITY

SBE200 STANDARD

Ammonium Nitrate based emulsion with excellent water resistance. The product is sensitised in-situ by the gassing solution while charging it into the blast holes using the MMU's units. The minimum recommended primer to detonate this product is 150g pentolite booster and its critical density is at 1.25g/cm^3. The Maximum charge depth of 47m can be achieved through a cup density of 0.95g/cm^3 for dry holes and 26m through a cup density of 1.05g/cm^3 for wet holes. A 5m stemming length of aggregate is used for both scenarios. The recommended minimum hole diameter is 89mm.

For zero length stemming conditions (suspension), a Maximum charge depth of 52m and 30m can be achieved for both dry and wet conditions, respectively.

SBE230 PREMIUM PLUS

Water resistant doped emulsion. The product is charged in blast holes when blended with AN prill and sensitized with gassing solution using the MMU's. The minimum recommended primer is 150g pentolite booster and its critical density is at 1.28g/cm^3. The Maximum charge depth of 41m is achieved through a cup density of 0.95g/cm^3 for dry holes and 24m through a cup density of 1.05g/cm^3 for wet holes. A 5m stemming length of aggregate is used for both scenarios. The recommended minimum hole diameter is 102mm.

For zero length stemming conditions (suspension), a Maximum charge depth of 45m and 28m can be achieved for both dry and wet holes respectively.

SBE230 PREMIUM

Water resistant doped emulsion. The product is charged in blast holes when blended with AN prill and sensitized with gassing solution using the MMU's units. The minimum recommended primer to detonate this product is 150g pentolite booster and its critical density is at 1.26g/cm^3. The Maximum charge depth of 62m could be achieved through a cup density of 0.95g/cm^3 for dry holes and 36m through a cup density of 1.05g/cm^3 for wet holes when using Aggregate and a 5m stemming length. The recommended hole diameter is 102mm.

For zero length stemming conditions (suspension), a Maximum charge depth of 67m and 40m can be achieved for both dry and wet holes respectively.

SBE235 COMPACT

Water resistant doped emulsion. The product is charged in blast holes when blended with AN prill and sensitized with a gassing solution using the MMU's. The minimum recommended primer is a 150g pentolite booster and its critical density is at 1.26g/cm^3. The Maximum charge depth of 68m is achieved through a cup density of 0.95g/cm^3 for dry holes and 40m through a cup density of 1.05g/cm^3 for wet holes. A 5m stemming length of aggregate is used for both scenarios. The recommended minimum hole diameter is 102mm.

For zero length stemming conditions (suspension), a Maximum charge depth of 73m and 44m can be achieved for both dry and wet holes respectively.

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GENERAL SPECIFICATION OF SBE200 SERIES

APPLICATION
Open Pit, Opencast, Quarrying

APPEARANCE

Honey coloured ammonium nitrate blasting intermediate, chemically sensitised on bench to become an explosive.

FEATURES

Reliable in wet and dry blast holes, Variable density and energy loading, Fully coupled explosive charges, Cost effective deep hole blasting, Proven reliability in blasting applications, Used up to temperatures of 55°C and Maximum sleep time 14 days

BENEFITS

Longest charge depth benefit above 60m, Highest shock energy in this series of product, All Solar's Surface Bulk Explosive series are pumped down-the-hole using state of the art MMU's.

PRODUCT QUALITY

Manufactured and loaded using an ISO9001 accredited process

Product Classification Information

Class / Division	5.1
Group / Type	E
UN No.	3375

DELIVERY
Emulsion Tankers, Prill Tankers and MMU's

DO & NOT TO DO
Products should be sensitized only at the bench; Charging of SBE200 Series into the blasting holes should be accomplished only by the recommended Solar Mining Services equipment; Do not transport Detonators and / or Primers with base Emulsion or prill.

DISCLAIMER

All the information presented in this TDS is accurate and up to date. Solar Mining Services may not be able to anticipate or control the circumstances and conditions under which these products are applied. The information shared in the product TDS is in the specific context of the intended application. Solar Mining Services will not be responsible for any damage of any nature resulting from those implied warranties, given other than those implied mandatories by local legislation.

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TECHNICAL PROPERTIES

Product Name	SBE200 Standard	SBE230 Premium Plus	SBE230 Premium	SBE235 Compact
Based Density (ungassed) g/cm³	1.31 – 1.33	1.36 – 1.37	1.31 – 1.32	1.31 – 1.32
Oxygen Balance	-10.42	-1.26	-1.26	-1.17
REE @ 100 MPa	92	105	105	107
RBS @ 100 Mpa	132	151	151	154
REE @ 20 Mpa	82	94	94	96
RBS @ 20 Mpa	118	135	135	138
Water Resistance	Excellent	Excellent	Excellent	Excellent
Recommended Max. Density (g/cm³)	1.25	1.28	1.26	1.26
VOD (m/s)	3500 - 4500	3500 - 5500	3200 – 4500	3200 – 4500
Recommended Minimum Hole Diameter (mm)	89	102	102	102
Mean Density Range g/cm³	1.15	1.15	1.15	1.15
Maximum Charge Depth (m): using Aggregate with 5m Stemming – DRY HOLES ONLY	47	41	62	68
Maximum Charge Depth (m): using Aggregate with 5m Stemming – WET & DRY HOLES	26	24	36	40
Maximum Charge Depth (m): No Stemming – DRY HOLES ONLY	52	45	67	73
Maximum Charge Depth (m): No Stemming – WET & DRY HOLES	30	28	40	44
Minimum Primer (Recommended Initiator)	89mm – 140mm 150g – 400g Pentolite Booster	104mm – 140mm 150g – 400g Pentolite Booster	104mm – 140mm 150g – 400g Pentolite Booster	104mm – 140mm 150g – 400g Pentolite Booster
	140mm – 311mm 400g – 800g Pentolite Booster	140mm – 311mm 400g – 800g Pentolite Booster	140mm – 311mm 400g – 800g Pentolite Booster	140mm – 311mm 400g – 800g Pentolite Booster
Gassing Time @ 25°C	45 minutes	45 minutes	45 minutes	45 minutes
Loading Method	Pump	Pump	Pump	Pump