

Surface Bulk Explosives

AEL's Surface Bulk Explosives are specifically designed with the end-user in mind. A holistic view of safety, environment and efficiency is the driving force behind our formulations. We consider surrounding communities, geological anomalies and the environmental impact to name but a few.

With solutions to suit every application, AEL's highly skilled team and its vast series of products have made the company an acknowledged leader in emulsion technology. In consultation with the end-user, AEL has the ability to develop flexible solutions that meet the customer's needs.

As a service provider, we strive to optimise mining operations by bringing a comprehensive range of value-adding services that complement our cutting-edge product offering.



Our base emulsions are classified as UN 5.1 Oxidisers prior to sensitisation. Our virgin oil-based emulsions have a honey coloured appearance whilst the Eco emulsions are brown to black in colour. Base emulsions (S100, S200, and S300) are handled and transported as an un-sensitised product to mines and/or operational sites.

Our base emulsion has passed the UN "Hazardous Goods" series of tests. This enables the transportation and handling of base emulsions (S100, S200, and S300) as an un-sensitized product.



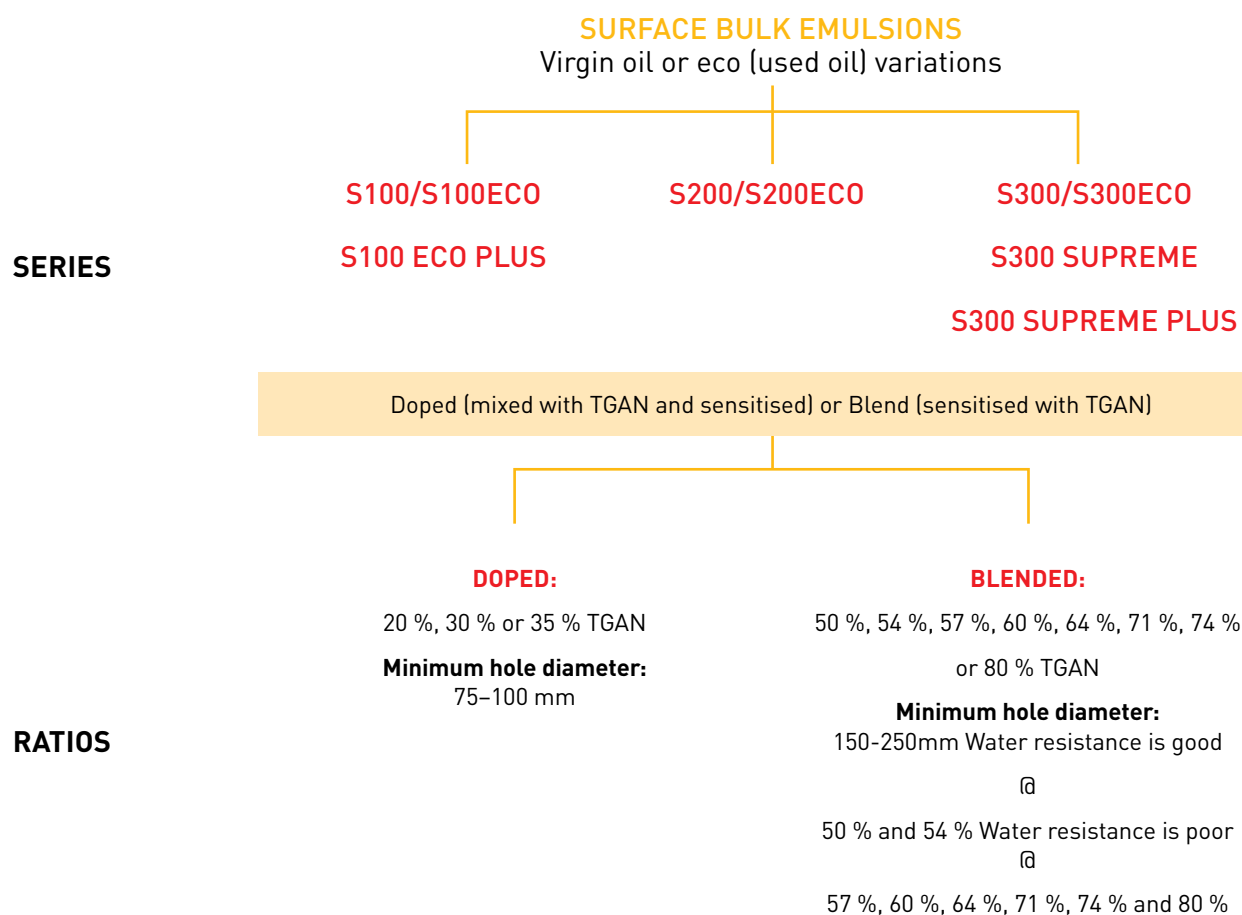
For mining areas which have hot-hole and reactive ground AEL has products and processes that are available.

These products are delivered and sensitised down the blast-hole with the use of AEL's series of mobile processing units (MPU's).



Emulsion Offerings

SURFACE BULK PRODUCTS



S100 SERIES



AEL's S100 Series base emulsion is typically used in standard surface mining applications. S100 has excellent water resistance with a yellow to white appearance attributed to the virgin fuels used within the formulation. It can be doped/blended with Technical grade Ammonium Nitrate (TGAN) to form various blends as outlined in the tables below. The sensitised S100 product has a Velocity of Detonation (VOD) in excess of 4500 m/s (subject to confinement and ground conditions).

APPLICATION

S100 base emulsion is delivered to mine sites in tankers and offloaded into silos or the Mobile Manufacturing Unit (MMU). The MMU mixes and sensitizes the required explosive blend.

- Charging procedures must be followed at all times
- S100 Series can be used in dry or de-watered blast-holes depending on the TGAN ratio doped/blended in the emulsion
- S100 blends are NOT for use in underground mines or reactive ground conditions

FEATURES

- Safe to handle
- On-bench blending of explosives
- A series of explosive blends to choose from, offering variable explosives properties for energy partitioning

INITIATION

- S100 is initiated with Pentolite boosters that are suitable for the respective hole diameter
- The use of detonating cord and/or packaged explosives as primers is not recommended

SPECIAL PRECAUTIONS

Base emulsions are classified as a 5.1 oxidiser and are not sensitive to normal stimuli, but under certain conditions they can explode, and may result in accidental detonation.

- Handle with care
- Although S100 does not burn easily it must be kept clear of flames and intense heat
- Application temperature range is 0 °C to 55 °C

STORAGE

- The shelf life of the base emulsion is 12 weeks from the date of manufacture
- Maximum sleep time for dopes up to 35% is 21 days. Although water resistance is good, sleep time is not recommended for blends of 50% and above in wet conditions
- The shelf life of the aqueous sensitiser is 6 months from the date of manufacture
- The emulsion and sensitiser should be stored separately

BEST PRACTICE

- Use blended product in heavy friable or jointed ground
- Ensure that toe loading occurs in wet holes in order to displace water
- Do not use in hot-hole blasting applications (Thermal stability of emulsions are dependent on the flashpoint of the diesel/oil used within the country you operate in). Ask your regional office for the operating temperature relevant to your region or area.)

PRODUCT SERIES												
S100 PUMPABLE EMULSION PRODUCT					S100 HEAVY ANFO PRODUCT							
PRODUCT	S100	S120	S130	S135	S150	S154	S157	S160	S164	S171	S174	S180
Ammonium Nitrate Emulsion (%)	100	80	70	65	50	46	43	40	36	29	26	20
Minimum Hole Diameter (mm)	75	75	100	100	229	229	200	150	150	150	150	150
Maximum Hole Depth (m)	40											
Water Resistance	Excellent				Good							
Typical In-hole Density (g/cm ³)	1.00-1.25					1.35	1.30	1.25	1.20	1.10	1.05	1.00
Sensitiser	Gassing Solution					TGAN						
Pumping Stages	6					6 (Augering)						
Proposed Primer	400 g Booster											
Ideal Delivered Energy (MJ/kg) @ 100 Mpa	2.1-2.3	2.3-2.5	2.4-2.6	2.5-2.7	2.6-2.8	2.8-3.1	2.7-3.0	2.7-2.9	2.6-2.8	2.5-2.7	2.5-2.7	2.4-2.6
*RWS @ 100 Mpa	95-99	103-107	107-111	111-115	115-119	123-127	121-125	119-123	117-121	112-116	109-114	107-111
*RBS @ 100 Mpa	149-153	163-167	169-173	174-178	180-184	210-214	198-202	186-190	176-180	154-158	143-147	135-139

Notes:

1. The availability of the above offering is subject to MPU configuration
 2. Please consult AEL Technical Services when loading holes deeper than 40 m
 3. In-hole densities of emulsions vary with depths. Please contact your regional sales office for assistance in finding the best product fit for your application
 4. Primer size is dependent on hole diameter. Please contact your regional sales office for guidance on primer selection
- * The Relative Weight and Bulk Strengths are relative to ANFO (=100 %) at a density of 0.80 g/cm³. The figures have been determined using the VIXEN-i detonation code

Transport (UN Classification)

Base Emulsion: Class 5.1, UN No. 3375, AMMONIUM NITRATE EMULSION
 Ammonium Nitrate Porous Prill: Class 5.1, UN No 1942, AMMONIUM NITRATE
 Emulsion Product: Class 1.1D, UN No. 0241, EXPLOSIVE, BLASTING, TYPE E

S100 Eco SERIES



AEL's S100 Eco Series base emulsion is typically used in standard surface mining applications with the added benefit of being environmentally friendly. The recycled oil component within the emulsion formulation is fully consumed during the detonation phase and allows for an efficient way of consuming used oils while contributing to energy. S100 Eco has excellent water resistance with a brown to black appearance due to the recycled oil content within the formulation. It can be doped/blended with Technical grade Ammonium Nitrate (TGAN) to form various blends as outlined in the tables below. The sensitised S100 Eco product has a Velocity of Detonation (VOD) in excess of 4500 m/s (subject to confinement and ground conditions).

APPLICATION

S100 Eco base emulsion is delivered to mine sites in tankers and off-loaded into silos or the Mobile Processing Unit (MPU). The MPU mixes and sensitises the required explosive blend.

- Charging procedures must be followed at all times
- S100 Eco Series can be used in dry or de-watered blast-holes depending on the TGAN ratio doped/blended in the emulsion
- S100 Eco blends are NOT for use in underground mines or reactive ground conditions

FEATURES

- Safe to handle
- On-bench blending of explosives
- A series of explosive blends to choose from, offering variable explosives properties for energy partitioning

INITIATION

- S100 Eco is initiated with Pentolite boosters that are suitable for the respective hole diameter
- The use of detonating cord and/or packaged explosives as primers is not recommended

SPECIAL PRECAUTIONS

Base emulsions are classified as a 5.1 oxidiser and are not sensitive to normal stimuli, but under certain conditions they can explode, and may result in accidental detonation.

- Handle with care
- Although S100 Eco does not burn easily it must be kept clear of flames and intense heat
- Application temperature range is 0 °C to 55 °C

STORAGE

- The shelf life of the base emulsion is 12 weeks from the date of manufacture
- Maximum sleep time for dopes up to 35% is 21 days. Although water resistance is good, sleep time is not recommended for blends of 50% and above in wet conditions

BEST PRACTICE

- Use blended product in heavy friable or jointed ground
- Ensure that toe loading occurs in wet holes in order to displace water
- Do not use in hot-holes that are in excess of 80 °C (Thermal stability of emulsions are dependent on the flashpoint of the diesel/oil used within the country you operated in. Ask your regional office for the operating value relevant to the region you operate in.)

PRODUCT SERIES					
S100 ECO PUMPABLE EMULSION PRODUCT					
PRODUCT	S100 ECO	S120 ECO	S130 ECO	S135 ECO	S150 ECO
Ammonium Nitrate Emulsion (%)	100	80	70	65	50
Minimum Hole Diameter (mm)	75	75	100	100	229
Maximum Hole Depth (m)	40				
Water Resistance	Excellent				Good
Typical In-hole Density (g/cm ³)	1.00-1.25				
Sensitiser	Gassing Solution				
Pumping Stages	6				6 (Augering)
Proposed Primer	400 g Booster				
Ideal Delivered Energy (MJ/kg) @ 100 Mpa	2.1-2.3	2.3-2.5	2.4-2.6	2.5-2.7	2.6-2.8
*RWS @ 100 Mpa	95-99	103-107	107-111	111-115	115-119
*RBS @ 100 Mpa	149-154	163-167	169-173	174-179	180-184

Notes:

1. The availability of the above offering is subject to MPU configuration
 2. Please consult AEL Technical Services when loading holes deeper than 40 m
 3. In-hole densities of emulsions vary with depths. Please contact your regional sales office for assistance in finding the best product fit for your application
 4. Primer size is dependent on hole diameter. Please contact your regional sales office for guidance on primer selection
- * The Relative Weight and Bulk Strengths are relative to ANFO (=100 %) at a density of 0.80 g/cm³. The figures have been determined using the VIXEN-i detonation code

Transport (UN Classification)

Base Emulsion: Class 5.1, UN No. 3375, AMMONIUM NITRATE EMULSION
 Ammonium Nitrate Porous Prill: Class 5.1, UN No 1942, AMMONIUM NITRATE
 Emulsion Product: Class 1.1D, UN No. 0241, EXPLOSIVE, BLASTING, TYPE E

S200 Eco Series



AEL's S200 Eco base emulsion is used in surface mining applications within most geological conditions but can also be used in hot-hole blasting applications limited to a 35 % dope with TGAN. The formulation is able to inhibit the thermal effect within the hot-hole blast column in order to provide a safety window during which charging operations can continue. In addition to this, AEL have designed the "Hot- Hole Monitor" as an early warning system to supplement safety, specifically when blasting in hot-holes or reactive ground. S200 Eco has excellent water resistance with a brown to black appearance attributed to the recycled oil content within the formulation. It can be doped with Technical grade Ammonium Nitrate (TGAN) to form various blends as outlined in the tables below. The sensitised S200 Eco product has a Velocity of Detonation (VOD) in excess of 4500 m/s (subject to confinement and ground conditions).

APPLICATION

S200 Eco base emulsion is delivered to mine sites in tankers and offloaded into silos or the Mobile Processing Unit (MPU). The MPU mixes and sensitises the required explosive blend.

- Charging procedures must be followed at all times
- S200 Eco can either be pumped or augured, depending on the ratio of TGAN doped/blended in the explosive
- S200 Eco can be used in dry or de-watered blast-holes depending on the TGAN ratio doped/blended in the emulsion
- S200 Eco blends are NOT for use in underground mines
- Not to be used in reactive ground applications

FEATURES

- Safe to handle
- On-bench blending of explosives
- A series of explosive blends to choose from, offering variable explosives properties for energy partitioning

INITIATION

- S200 Eco is initiated with Pentolite boosters that are suitable for the respective hole diameter

- In normal blasting applications, the booster is usually toe-primed and initiated electronically or with shock tube
- In hot-hole blasting applications, the boosters are usually collar primed and initiated with detonating cord
- The use of detonating cord and/or packaged explosives as primers is not recommended

SPECIAL PRECAUTIONS

Base emulsions are classified as a 5.1 oxidiser and are not sensitive to normal stimuli, but under certain conditions they can explode, and may result in accidental detonation.

- Handle with care
- Although S200 Eco does not burn easily, it must be kept clear of flames and intense heat
- Collar priming is recommended in hot-hole conditions
- When blasting in hot-hole applications, S200 Eco should be used in conjunction with AEL's Hot-Hole Monitor to enhance on-bench safety

STORAGE

- The shelf life of the base emulsion is 12 weeks from the date of manufacture
- Maximum sleep time for dopes up to 35% is 21 days. Although water resistance is good, sleep time is not recommended for blends of 50% and above in wet conditions
- Sleeping is not recommended in hot-hole conditions
- The shelf life of the aqueous sensitiser is 6 months from the date of manufacture
- The emulsion and sensitiser should be stored separately

BEST PRACTICE

- S200 Eco can be used in hot-holes (The use of Hot-Hole monitors are strongly advised)
- Collar priming is advised
- Doping is not recommended in hot-hole blasting applications without the use of a hot-hole monitor
- Use blended product in heavy friable or jointed ground (Not for hot-holes)
- Ensure that toe loading occurs in wet holes in order to displace water (Not for hot-holes)

PRODUCT SERIES						
S200 PUMPABLE EMULSION PRODUCT						
PRODUCT	S200 ECO	S220 ECO	S230 ECO	S235 ECO	S250 ECO	S254 ECO
Ammonium Nitrate Emulsion (%)	100	80	70	65	50	46
Minimum Hole Diameter (mm)	75	75	100	100	229	229
Maximum Hole Depth (m)	40					
Water Resistance	Excellent				Good	
Sensitised Product Density (g/cm ³)	1.00-1.25					
Sensitiser	Gassing Solution					TGAN
Pumping Stages	6				6 (Augering)	
Proposed Primer	400 g Booster					
Ideal Delivered Energy (MJ/kg) @ 100 Mpa	1.9-2.3	2.1-2.5	2.2-2.6	2.3-2.7	2.4-2.9	2.5-3.0
*RWS @ 100 Mpa	82-95	92-104	97-109	100-112	116-123	117-124
*RBS @ 100 Mpa	134-149	140-163	148-171	153-175	199-207	200-208

Notes:

1. The availability of the above offering is subject to MPU configuration
 2. Please consult AEL Technical Services when loading holes deeper than 40 m
 3. In-hole densities of emulsions vary with depths. Please contact your regional sales office for assistance in finding the best product fit for your application
 4. Primer size is dependent on hole diameter. Please contact your regional sales office for guidance on primer selection
- * The Relative Weight and Bulk Strengths are relative to ANFO (=100 %) at a density of 0.80 g/cm³. The figures have been determined using the VIXEN-i detonation code

Transport (UN Classification)

Base Emulsion: Class 5.1, UN No. 3375, AMMONIUM NITRATE EMULSION
 Ammonium Nitrate Porous Prill: Class 5.1, UN No 1942, AMMONIUM NITRATE
 Emulsion Product: Class 1.1D, UN No. 0241, EXPLOSIVE, BLASTING, TYPE E

S300 Series Reactive Ground



AEL's S300 base emulsion is used in surface mining applications and was specifically developed for applications where reactive ground is prevalent. The inhibiting properties of the S300 formulation allows for usage in reactive ground as it delays the exothermic reaction when pyrites come into contact with nitrates. S300 has excellent water resistance with a yellow to white appearance. It can be doped/blended with Technical grade Ammonium Nitrate (TGAN) to form various blends as outlined in the tables below. The sensitised S300 product has a Velocity of Detonation (VOD) in excess of 4500 m/s (subject to confinement and ground conditions).

APPLICATION

S300 base emulsion is delivered to mine sites in tankers and offloaded into silos or the Mobile Processing Unit (MPU). The MPU mixes and sensitizes the required explosive blend.

- Charging procedures must be followed at all times
- S300 can either be pumped or augured, depending on the ratio of TGAN doped/blended in the emulsion
- S300 blends are NOT for use in underground mines
- Suitable for use in reactive ground with more than 1 % but less than 6 % pyrites, dependent on compatibility testing

FEATURES

- Safe to handle
- On-bench blending of explosives
- A series of explosive blends to choose from, offering variable explosives properties for energy partitioning

INITIATION

- S300 is initiated with Pentolite boosters that are suitable for the respective hole diameter
- The use of detonating cord and/or packaged explosives as primers is not recommended

SPECIAL PRECAUTIONS

Base emulsions are classified as a 5.1 oxidiser and are not sensitive to normal stimuli, but under certain conditions they can explode, and may result in accidental detonation.

- Handle with care
- Although S300 does not burn easily it must be kept clear of flames and intense heat
- Application temperature range is 0 °C to 55 °C
- It is recommended that AEL's Hot-Hole Monitor should be used in conjunction with this product for safer blasting

STORAGE

- The shelf life of the base emulsion is 12 weeks from the date of manufacture
- Sleeping of the product is not recommended due to safety requirements but can be achieved dependent on compatibility and sleep time testing
- The shelf life of the aqueous sensitiser is 6 months from the date of manufacture
- The emulsion and sensitiser should be stored separately

BEST PRACTICE

- Use blended product in heavy friable or jointed ground
- Ensure that toe loading occurs in wet holes in order to displace water
- Do not use in hot-hole blasting applications (Thermal stability of emulsions are dependent on the flashpoint of the diesel/oil used within the country you operate in). Ask your regional office for the operating temperature relevant to your region or area.)

PRODUCT SERIES					
S300 PUMPABLE EMULSION PRODUCT					
PRODUCT	S300	S320	S330	S335	S350
Ammonium Nitrate Emulsion (%)	100	80	70	65	50
Minimum Hole Diameter (mm)	75	75	100	100	229
Maximum Hole Depth (m)	40				
Water Resistance	Excellent				Good
Sensitised product Density (g/cm ³)	1.00-1.25				
Sensitiser	Gassing Solution				
Pumping Stages	6				6 (Augering)
Primer	400 g Booster				
Ideal Delivered Energy (MJ/kg) @ 100 Mpa	2.1-2.3	2.3-2.5	2.4-2.6	2.5-2.7	2.7-2.8
*RWS @ 100 Mpa	93-97	101-105	105-109	109-113	113-117
*RBS @ 100 Mpa	147-151	161-165	167-171	172-176	179-184

Notes:

1. The availability of the above offering is subject to MPU configuration
 2. Please consult AEL Technical Services to determine reactivity levels, in order to have the most suitable product for the relevant conditions
 3. Please consult AEL Technical Services when loading holes greater than 40 m
 4. In-hole densities of emulsions vary with depths. Please contact your regional sales office for assistance in finding the best product fit for your application
 5. Primer size is dependent on hole diameter. Please contact your regional sales office for guidance on primer selection.
- * The Relative Weight and Bulk Strengths are relative to ANFO (=100 %) at a density of 0.80 g/cm³. The figures have been determined using the VIXEN-i detonation code

Transport (UN Classification)

Base Emulsion: Class 5.1, UN No. 3375, AMMONIUM NITRATE EMULSION
 Ammonium Nitrate Porous Prill: Class 5.1, UN No 1942, AMMONIUM NITRATE
 Emulsion Product: Class 1.1D, UN No. 0241, EXPLOSIVE, BLASTING, TYPE E

S300 Eco Series Reactive Ground



AEL's S300 Eco base emulsion is used in surface mining applications and was specifically developed for applications where reactive ground is prevalent. The inhibiting properties of the S300 formulation allows for usage in reactive ground as it delays the exothermic reaction when pyrites come into contact with nitrates. The recycled oil component within the emulsion formulation is fully consumed during the detonation phase and allows for an efficient way of consuming used oils while contributing to energy. S300 Eco has excellent water resistance with a brown to black appearance attributed to the recycled oil content within the formulation. It can be doped/blended with Technical grade Ammonium Nitrate (TGAN) to form various blends as outlined in the tables below. The sensitised S300 Eco product has a Velocity of Detonation (VOD) in excess of 4500 m/s (subject to confinement and ground conditions).

APPLICATION

S300 Eco base emulsion is delivered to mine sites in tankers and offloaded into silos or the Mobile Processing Unit (MPU). The MPU mixes and sensitises the required explosive blend.

- Charging procedures must be followed at all times
- S300 Eco can either be pumped or augured, depending on the ratio of TGAN doped/blended in the emulsion
- S300 Eco can be used in dry or de-watered blast-holes depending on the TGAN ratio doped/blended in the emulsion
- S300 Eco blends are NOT for use in underground mines
- Suitable for use in reactive ground with more than 1 % but less than 6 % pyrites, dependent on compatibility testing

FEATURES

- Safe to handle
- On-bench blending of explosives
- A series of explosive blends to choose from, offering variable explosives properties for energy partitioning

INITIATION

- S300 Eco is initiated with Pentolite boosters that are suitable for the respective hole diameter
- The use of detonating cord and/or packaged explosives as primers is not recommended

SPECIAL PRECAUTIONS

Base emulsions are classified as a 5.1 oxidiser and are not sensitive to normal stimuli, but under certain conditions they can explode, and may result in accidental detonation.

- Handle with care
- Although S300 Eco does not burn easily it must be kept clear of flames and intense heat
- Application temperature range is 0 °C to 55 °C
- It is recommended that AEL's Hot-Hole Monitor should be used in conjunction with this product to enhance on bench safety

STORAGE

- The shelf life of the base emulsion is 12 weeks from the date of manufacture
- Sleeping of the product is not recommended due to safety requirements but can be achieved dependent on compatibility and sleep time testing
- The shelf life of the aqueous sensitiser is 6 months from the date of manufacture
- The emulsion and sensitiser should be stored separately

BEST PRACTICE

- Use blended product in heavy friable or jointed ground
- Ensure that toe loading occurs in wet holes in order to displace water
- Do not use in hot-hole blasting applications (Thermal stability of emulsions are dependent on the flashpoint of the diesel/oil used within the country you operate in). Ask your regional office for the operating temperature relevant to your region or area.)

PRODUCT SERIES					
S300 ECO PUMPABLE EMULSION PRODUCT					
PRODUCT	S300 ECO	S320 ECO	S330 ECO	S335 ECO	S350 ECO
Ammonium Nitrate Emulsion (%)	100	80	70	65	50
Minimum Hole Diameter (mm)	75	75	100	100	230
Maximum Hole Depth (m)	40				
Water Resistance	Excellent				Good
Typical In-hole Density (g/cm ³)	1.00-1.25				
Sensitiser	Gassing Solution				
Pumping Stages	6				6 (Augering)
Primer	400 g Booster				
Ideal Delivered Energy (MJ/kg) @ 100 Mpa	2.1-2.3	2.3-2.5	2.4-2.6	2.5-2.7	2.7-2.8
*RWS @ 100 Mpa	91-95	100-104	105-109	108-112	115-119
*RBS @ 100 Mpa	145-149	159-163	165-169	170-174	190-194

Notes:

1. The availability of the above offering is subject to MPU configuration
 2. Please consult AEL Technical Services to determine reactivity levels, in order to have the most suitable product for the relevant conditions
 3. Please consult AEL Technical Services when loading holes greater than 40 m
 4. In-hole densities of emulsions vary with depths. Please contact your regional sales office for assistance in finding the best product fit for your application
 5. Primer size is dependent on hole diameter. Please contact your regional sales office for guidance on primer selection
- * The Relative Weight and Bulk Strengths are relative to ANFO (=100 %) at a density of 0.80 g/cm³. The figures have been determined using the VIXEN-i detonation code

Transport (UN Classification)

Base Emulsion: Class 5.1, UN No. 3375, AMMONIUM NITRATE EMULSION
 Ammonium Nitrate Porous Prill: Class 5.1, UN No 1942, AMMONIUM NITRATE
 Emulsion Product: Class 1.1D, UN No. 0241, EXPLOSIVE, BLASTING, TYPE E

S300 Supreme Highly Reactive Ground



AEL's S300 Supreme base emulsion is used in surface mining applications and was specifically developed for applications where highly reactive ground is prevalent. The inhibiting properties of the S300 formulation allows for usage in reactive ground as it significantly delays the exothermic reaction when it comes into contact with nitrates. S300 has excellent water resistance with a yellow to white appearance. The sensitised S300 product has a Velocity of Detonation (VOD) in excess of 4500 m/s (subject to confinement and ground conditions).

APPLICATION

S300 Supreme base emulsion is delivered to mine sites in tankers and offloaded into silos or the Mobile Processing Unit (MPU). The MPU mixes and sensitises the required explosive with sensitising agent.

- Charging procedures must be followed at all times
- S300 Supreme series can be used in dry or de-watered blast-holes
- S300 Supreme is NOT for use in underground mines
- Suitable for use in highly reactive ground containing more than 6 % pyrites, dependent on compatibility testing

FEATURES

- Suitable for highly reactive ground
- Safe to handle
- No sleeving is required to isolate the product from the reactive ground

INITIATION

- S300 Supreme is initiated with Pentolite boosters that are suitable for the respective hole diameter
- The use of detonating cord and/or packaged explosives as primers is not recommended

SPECIAL PRECAUTIONS

Base emulsions are classified as a 5.1 oxidiser and are not sensitive to normal stimuli, but under certain conditions they can explode, and may result in accidental detonation.

- Handle with care
- Although S300 Supreme does not burn easily it must be kept clear of flames and intense heat
- Application temperature range is 0 °C to 55 °C
- This product must be used in conjunction with AEL's Hot-Hole Monitor which will allow for safer loading and act as an early warning system
- AEL's Technical Services must be consulted to determine reactivity levels, in order to have the most suitable product for the relevant conditions

STORAGE

- The shelf life of the base emulsion is 12 weeks from the date of manufacture
- The shelf life of the aqueous sensitiser is 6 months from the date of manufacture
- The emulsion and sensitiser should be stored separately

BEST PRACTICE

- The use of TGAN is not recommended (The addition of ammonium nitrate increases the reaction with the pyrites)
- Ensure that toe loading occurs in wet holes in order to displace water
- Sleeping of the S300 Supreme is limited to 7 days, dependent on compatibility and sleep time testing
- Do not use in hot-hole blasting applications (Thermal stability of emulsions are dependent on the flashpoint of the diesel/oil used within the country you operate in). Ask your regional office for the operating temperature relevant to your region or area.)

PRODUCT SERIES	
S300 SUPREME PUMPABLE EMULSION PRODUCT	
Ammonium Nitrate Emulsion (%)	100
Minimum Hole Diameter (mm)	200
Maximum Hole Depth (m)	40
Water Resistance	Excellent
Typical In-hole Density (g/cm ³)	1.00-1.22
Sensitiser	Gassing Solution
Pumping Stages	6
Primer	400 g Booster
Ideal Delivered Energy (MJ/kg) @ 100 Mpa	2.0-2.3
*RWS @ 100 Mpa	87-92
*RBS @ 100 Mpa	138-145

Notes:

1. The availability of the above offering is subject to MPU configuration
 2. Please consult AEL Technical Services when loading holes greater than 40 m
 3. In-hole densities of emulsions vary with depths. Please contact your regional sales office for assistance in finding the best product fit for your application
 4. Primer size is dependent on hole diameter. Please contact your regional sales office for guidance on primer selection
- * The Relative Weight and Bulk Strengths are relative to ANFO (=100) at a density of 0.80 g/cm³. The figures have been determined using the VIXEN-i detonation code

Transport (UN Classification)

Base Emulsion: Class 5.1, UN No. 3375, AMMONIUM NITRATE EMULSION
 Emulsion Product: Class 1.1D, UN No. 0241, EXPLOSIVE, BLASTING, TYPE E