

# Velocity®

## VLH SERIES



Velocity® VLH Heavy ANFO range of products is a blend of Ammonium Nitrate Emulsion, Ammonium Nitrate and Fuel Oil for use in dry and dewatered blast holes. Velocity® VLH range of products is delivered into the blast hole via an auger.

### Benefits

The benefits of Velocity® VLH range of products are:

- High blast hole loading rates.
- High energy products that can easily be adapted to meet the energy requirements for any rock type.
- Velocity® VLH Heavy ANFO products have a range of densities and energies.
- Velocity® VLH 1660 and 1670 are water resistant products and can be used in dewatered blast holes containing static water under certain conditions.

### Application

Velocity® VLH Heavy ANFO products are high energy products ideal for dry or dewatered holes and can be tailored to suit non-reactive ground types with no water present or static water conditions.

- Velocity® VLH 1680 and 1690 products should be used in dry holes only to obtain maximum energy output.
- Velocity® VLH 1660 and 1670 products can be used in both dry holes and holes that had contained static water prior to dewatering.
- Velocity® VLH 1670 if used in dewatered holes should ideally be fired the same day as loading.
- Velocity® VLH 1660 if used in dewatered holes should ideally be fired within 48 hours of loading.
- Velocity® VLH 1660 and 1670 products should not be used in areas where dynamic water is present.

### Specification

(Stated at 100MPa)

PROPERTIES	ANFO	VELOCITY® VLH			
Product Identification		VLH 1660	VLH 1670	VLH 1680	VLH 1690
Energy <sup>1</sup> (MJ/kg)	2.31	2.44	2.56	2.61	2.67
Relative Weight Strength <sup>1</sup>	100	105	111	113	115
Relative Bulk Strength <sup>1</sup>	100	118	138	135	144
Normal Density Range <sup>2</sup>	0.7-0.85	0.85-0.95	0.95-1.08	1.08-1.18	1.18-1.30
Minimum Hole Diameter (mm)	60	100	115	158	179
Water Resistance <sup>3</sup>	0	0	0	1	2
Sleeping time in dry holes <sup>4</sup>	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks

1. Energy values, Relative Weight Strength and Relative Bulk Strength are calculated using an in-house thermodynamic code. This traditional way of calculating energy is directly related to density and does not take into account the distribution of energy.

2. A number of factors affect final product density including in-hole conditions, ammonium nitrate density, emulsion density, ammonium nitrate fines.

3. Water resistance is a qualitative measure with 0 being none, 3 being good and 5 being excellent.

4. Sleep times are dependent on in-hole water conditions and geology. Predicted blast performance will be affected by extended sleep times.

## Classification

UN No:	0241
Shipping Name:	Explosive, Blasting, Type E
Class:	1.1D

## Recommendations for Use

### Priming Requirements

The minimum primer is a 340g cast Booster although a 400g cast Booster is preferred. It is recommended that an additional cast booster be used every 15 metres of column charge to reduce risks associated with explosive column disruption.

### Packaging

Velocity<sup>®</sup> VLH is available in bulk, delivered through bulk truck delivery systems.

### Handling

Information regarding this product is available from the relevant SynegeX product MSDS.

### Transportation

All explosives are classified as Dangerous Goods and must be transported in accordance with relevant State and Commonwealth regulations.

### Storage & Security

All explosives are classified as Dangerous Goods and must be stored and secured in accordance with the relevant State and Commonwealth regulations.

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