

Pentex™ 25



Description

Pentex™ 25 is a NG-free, small-hole booster. It is intended mainly for use in tunnel rounds, since it is suitable for use with modern charging equipment using Exan™ or bulk emulsions such as Subtek™ and Civec™.

Pentex™ 25 consists of a plastic shell filled with a PETN - based plastic explosive. The PETN gives the product more energy and a higher and more even detonation velocity compared with conventional dynamites. Since Pentex™ 25 does not contain nitroglycerin, it does not cause the headaches associated with the handling of NG products, especially on skin contact.

Application

Pentex™ 25 makes charging work easier, for it contributes to quick and efficient handling. The detonator is inserted into the booster quickly and easily. The primer is then inserted into the charging hose to be placed at the bottom of the hole during the actual charging sequence.

Key Benefits

- High velocity detonation rate.
- High density.
- Modified detonator well secures the detonator within the booster.
- Safe and simple handling.
- No additional tool necessary.

Recommendations for Use

- Use the oldest products in magazines first.
- Store appropriately according to explosives and magazines regulation.
- Not for sites with danger of fire damp or coal dust explosion.

Technical Properties

Product	Pentex™ 25
Nominal cartridge diameter (mm)	15
Nominal cartridge length (mm)	180
Nominal explosive mass (g)	25
Shell colour	red
Density (g/cm ³) ⁽¹⁾	1.5 ±0.1
Hole Type	Wet and dry
Detonation velocity (m/s) ⁽²⁾	>7000
Explosion heat (MJ/kg)	5,4
Oxygen balance (%)	-7.5
Gas volume (l/kg)	830
Water resistance	Very good
Water resistance, pressure-time	3 bar for 24 hours
Weight strength (%) ⁽³⁾	120
Detonator sensitive down to (°C)	-50
Impact sensitive (BAM fall hammer) (J) ⁽⁴⁾	15
Friction sensitive (BAM friction instrument) (N)	>360

Priming and Initiation

Use only detonators with a strength equivalent to Ref. Det. #3 (EN 13763-15) or stronger (at least 600 mg PETN base charge).

Ground Temperature

These products are available for use in ground temperatures - 50° C to a maximum of +50° C. If your application requires you to operate outside this temperature range, please contact your DEXPLOC representative.

Packaging

Pentex™ 25 boosters are available in the following packaging:

Gross weight cartridge (g)	Cartridge per box (items)	Net explosive weight (kg)	Net weight box (kg)	Gross weight box (kg)
36	400	10	14.4	14.9

Storage and Handling

Product Classification

Authorised Name:	Pentex™ 25
Proper Shipping Name:	BOOSTER without detonator
UN No.:	0042
Classification:	1.1D
EC Type Certificate:	0589.EXP.1993/09

Storage

Pentex™ 25 boosters should be stored in a suitably licensed magazine for Class 1.1D explosives.

Pentex™ 25 boosters have a storage life of 2 years in stable, temperate conditions.

Pentex™ boosters are best stored at ambient temperatures of 0° C to +40 °C.

Disposal

Disposal of explosive materials can be hazardous. Methods for safe disposal of explosives may vary depending on the user's situation. Please contact a DEXPLOC representative for information on safe practices.

Safety

Pentex™ 25 boosters contain explosives, which can be initiated by intense impact, friction or heat. As with all high explosives, Pentex™ 25 boosters should be handled and stored with care.

Boosters must be handled with care and avoid impact with a solid surface or another booster. Any such collision may cause damage that could lead to a misfire, or a premature initiation.

DO NOT use these boosters with any detonator, which cannot be completely contained within the booster. If this is not observed, damage to the detonator may occur during charging which may lead to a premature detonation.

Training

This Technical Data Sheet is for information only. Boosters must only be used by personnel who have been properly trained to use this product.

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Notes:

1. Nominal Density Only.
2. VOD will depend on application including explosive density, blasthole diameter and degree of confinement. The VOD range is based on minimum unconfined and calculated ideal.
3. For cartridge products, the relative weight strength (MJ/kg) is always compared to dynamites as the base = 100 % (theoretically, the weight strength between different types of dynamites – can vary with small margins, depending of the calculation methods of the different manufacturers).
4. The values relate to the high explosive without shell. The shell provides increased safety against impact and friction.