

Semtex

The SEMTEX family of industrial explosives are designed to be used for boosting, secondary blasting, destructions and special blasting works. The plastic explosives SEMTEX are marked for detection according to the requirements of Montreal Convention (ICAO).



SEMTEX 1A, SEMTEX 10

SEMTEX® 1A is a plastic explosive for special use on the basis of an inexplusive plasticizer with penthrite as an active component. The explosive contains a marking substance for pre-explosive detection. It is used primarily for destruction works, underwater blasting works (up to 100 m), special blasting works and as an initiator. The explosive can be split and shaped under the conditions indicated in the instruction manual for its use. The above-mentioned explosives are based on crystalline PETN and non-explosive plasticizer.

SEMTEX 1A, SEMTEX 2PN and SEMTEX 10 are designed to be used for destruction of concrete, metal constructions or underwater blasting operations. They also may be used for construction of special cumulative and oriented charges. Semtex 1A, CE No.: 0589.EXP.0138/01

SEMTEX® 10 is a plastic explosive for special use on the basis of an inexplusive plasticizer with penthrite as an active component. The explosive contains a marking substance for pre-explosive detection. It is used primarily for special destruction and blasting works, underwater blasting works (up to 100 m of water column). This black explosive can be shaped well and has good adhesive properties. The explosive can be split and shaped under the conditions indicated in the instruction manual for its use.

SEMTEX 1AP, SEMTEX 2P

These explosives are specially formed as booster charges. The charges are of hexagonal shape with hole for detonating cord in their vertical axe. Special PETN / wax body inside of charge assures absolute reliability for detonating cords or detonators. The explosive parameters of explosive mass assure high initiating power of booster charges.

SEMTEX 1H

SEMTEX® 1H is a plastic explosive for special use on the basis of an inexplusive plasticizer with penthrite and hexogene as active components. The explosive contains a marking substance for pre-explosive detection. It is used primarily for destruction works, underwater blasting works (up to 100 m of water column) and special blasting works. This explosive of the SEMTEX® type has the highest velocity of detonation. The explosive can be split and shaped under the conditions indicated in the instruction manual for its use.

The plastic explosive SEMTEX 1 H (SEMTEX H) is based on crystalline RDX or mixture of RDX / PETN and none explosive plasticizer. The technical specification permits variations in the RDX / PETN ratio in a wide range.

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Packaging

The SEMTEX® 1H and SEMTEX® 10 explosives are packaged in waxed paper. They are supplied in the form of bricks with a mass from 250 to 3,000 g according to the customer's requirements. There are 24 or 25 kg of explosives in the transport packaging.

The SEMTEX® 1A explosive is packaged in waxed paper or PE hoses. The initiating explosive cartridges with a centre channel are packaged into paper tubes with plastic caps with openings for the detonator.

OBRYISIT

OBRYISIT is the gelatinous explosive lightened with expanded polystyrene balls. The composition of OBRYISIT assures stable detonating velocity even if the density of explosive mass is low. OBRYISIT explosive is designed to be used for presplit blasting works on sites where there it is necessary to avoid the burst of fragmentation (tunneling blasting operations).

Parameter	Unit	SEMTEX 1A	SEMTEX 1H	SEMTEX 10
Type	-	Plastic	Plastic	Plastic
Colour	-	Red	Yellow	Black
Explosion Heat	kJ/kg	4,980	4,982	5,030
Swath Volume	dm³/kg	950	950	790
Oxygen Balance	%O ₂	-66.0	-61.7	-45
Detonation velocity	m/s	7,200	7,400	7,300
Trauzl test	ml	330	330	330
Brisance by Hess	mm	21	22	22
RWS (blasting gelatine)	%	80	85	80
Temperature of explosion	°C	3,800	3,800	3,800
Transmission of detonation	cm	3	5	5
Density	kg/m³	1,420	1,430	1,470
Initiation sensitivity	-	cap No. 8	cap No. 8	cap No. 8
Water resistance	-	excellent	excellent	excellent
Smallest permitted diameter	mm	3	5	3.5



Product & Packaging Data

Mondial Stock Ref.	On application
UN Classification	0084, Type D , 1. 1 D, ADR
Shipping name	Explosive, Blasting
Standard Packaging	UN approved cardboard boxes
	Bricks (1000 , 2500 , 3000 g) wrapped in a paraffin coated paper or polyethylene
SEMTEX 1A	Rods 21 mm in diameter / 300 g
	Boosters - diameter 50 or 60 mm (weight 250, 500, 1000)
SEMTEX 1H	Bricks 2500 g