



Producer: Explosia a.s., Pardubice – Semtín, Czech Republic

CE 0589.EXP.5745/03

SEMTEX 10-SE

explosive for special use

DIRECTIONS FOR USE

I. Scope and conditions of use

1. SEMTEX 10-SE is designed primarily for special types of blasting work (the hardening of metallic materials), on surfaces in inexplusive environment only under conditions stated in regulations on explosives and in these Directions.
2. SEMTEX 10-SE is not permitted in such materials, where its use could cause their setting in fire or explosion.
3. SEMTEX 10-SE is plastic, easy shapeable, homogeneous material of white colour.
4. SEMTEX 10-SE is used in the form of the sheet charge. The low limit diameter permitted for SEMTEX 10-SE is 1.5 mm.
5. SEMTEX 10-SE supplied and used shall have the properties stated in organizational standard TDV 516/13.

II. Initiation and loading

1. To initiate reliably SEMTEX 10-SE the primer shall be used of initiation capacity equivalent to 0.72 h penthrite. The detonator shall be placed on the edge of the explosive and covered with the bit of the explosive so as not protrude from the sheet charge. Close contact of the primer surface with the mass of explosive shall be ensured; thickness of explosive mass layer under the bottom of the primer shall be 2 mm at minimum.
2. Pneumatic loading is not permitted.
3. SEMTEX 10-SE can be portioned and shaped manually or by means of non-sparking objects (e.g. bronze) on soft bearing plate (e.g. wood).

III. Water resistance

SEMTEX 10-SE can also be used in wet environment and under water. Water column pressure shall not exceed 0.3 MPa.

IV. Temperature and pressure ranges for application

1. SEMTEX 10-SE is allowed to be used within temperature range -10 °C to +40 °C.

V. Service life and storage conditions

SEMTEX 10-SE is allowed to be used for not longer than 24 months since the date of production (service life as well as warranty period) provided the product is stored in the room, where temperature does not drop below -10 °C and exceed +40 °C regardless of relative humidity.

VI. Classification for transport

1. For the purposes of public railway and road transport SEMTEX 10-SE is classified according to RID and ADR to Class 1; UN 0084 EXPLOSIVES TYPE D; 1.1 D.

2. For the purposes of storage SEMTEX 10-SE is classified according to ČBÚ Decree No. 99/1995 of Coll. to Class AIII, serial No. 9.

VII. Packing and marking

SEMTEX 10-SE is supplied in the form of the sheet charge with dimensions 300 x 2 mm and length equivalent 10 kg, i.e. ca 10 m. The linear sheet charge is covered with plastic foil (silicone paper or plastic foil and silicone paper combination) and reeled on the spool. Two spools by 10 kg are put into the transport packing. Dimensions and weight of sheet charges can be changed according to customer's requirement. Transport (forwarding) packing shall meet the regulations for transport of dangerous goods of Class 1.

Transport (forwarding) packings shall be provided with the data prescribed by ČSN 66 8011. In addition to that, each transport packing shall be provided with mark CE and identification number of the notified person.

VIII. Disposal considerations

SEMTEX 10-SE is disposed solely by explosion on approved safe place on surface. At disposal, relevant safety regulations on explosives shall be followed. The packings contaminated with explosive are disposed by burning.

IX. Information on hazardous defects

No occurrence of hazardous defects is supposed at SEMTEX 10-SE explosive.

X. Misfires disposal considerations

Misfires disposal is accomplished according to relevant provisions of ČBÚ Decree No. 72/1988 of Coll., in the wording of later regulations.

XI. Safety and health provisions

The data on safety and health protection are specified in the Safety Data Sheet of the product. The Safety Data Sheet is provided always with the first supply of the product or upon request.

XII. Physical and function parameters

SEMTEX 10-SE is a mixture of pentrite, plastic binder and marking agent.

Basic technical specifications according to TDV 516/13:

Quality parameter	Unit	Value	
		up to 1 week after production	in the end of service life
Calculated explosive characteristics:			
Oxygen balance	% O ₂	-62,6	
Specific volume of explosion products	dm ³ .kg ⁻¹	944	
Heat of explosion	kJ.kg ⁻¹	3992	
Explosion temperature	°C	2600	
Flash point, min.	°C	150	
Detonation velocity, min.	m.s ⁻¹	6700	
Detonation transmission, min.	cm	contact	
Detonation capacity	-	Primer No. 8	
Sensitivity to impact, hammer, min.	J	4	
Sensitivity to friction, min.	N	80	
Thermal stability, 75°C/48 h	-	no reaction	
Permitted low limit diameter	mm	1.5	
Density, min.	g.cm ⁻³	1.45	

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Approved by:

