

# NON-ELECTRICAL DETONATOR EXSANEL SU

**EXSANEL** is the new non-electrical detonator, manufactured with components of the highest quality and under the most stringent international technical specifications. Used for accurate and safe initiation of detonator-sensitive explosives (high explosives).

**EXSANEL** consists of a No. 12 blasting cap, one shock tube with high resistance to traction and abrasion, one plastic resistant "J" connector and label. Has two identification points (on clip and on label).

## Advantages:

- Direction of movement of the blasted rock as designed.
- Better control over fly rock design.
- Better delay time range necessary for the required fragmentation. This minimizes vibrations.
- The **EXSANEL** non-electrical detonator allows a high level of safety against static electricity initiation, stray currents and radiofrequency transmission.
- Includes high resistance to traction and to abrasion, and reliability in transmission of the signal inside the shock tube.

## Recommendations for Use:

- Cutting the tube is not recommended, as moisture could seep in, limiting initiation.
- Do not apply tension, twist or stretch the tube, as it may cause malfunctioning.

## Technical specifications

	Units	Blasting cap		Units	Shock Tube
Explosive charge			Outer	mm	3.0
PETN	mg	780	Internal diameter	mm	1.1
Lead azide	mg	150	Velocity	m/s	2,000
Power		12	Resistance to traction	Kg min	16
Esopo	min	9 mm	Elongation	% min	160
Trauzl	min	32 cc			
Shock test	Kg a m	2 a 0.9			
Diameter	mm	7.5			
Shell Length	mm	53.3 – 99.6			



## NON-ELECTRICAL DETONATOR EXSANEL

Series	Delay (MS)	Use	
		Pit, Breasting, Rock	Fronts
N° 1	25	√	√
N° 2	50	√	
N° 3	75	√	
N° 4	100	√	
N° 5	125	√	
N° 6	150	√	
N° 7	175	√	
N° 8	200	√	√
N° 10	250	√	
N° 12	300	√	
N° 14	350	√	
N° 16	400	√	√
N° 18	450	√	
N° 20	500	√	
N° 24	600	√	
N° 28	700	√	
N° 32	800	√	
N° 36	900	√	
N° 40	1,000	√	
N° 48	1,200		√
N° 56	1,400		√
N° 72	1,800		√
N° 92	2,400		√
N° 120	3,000		√
N° 140	3,800		√
N° 180	4,600		√
N° 220	5,500		√
N° 240	6,400		√
N° 288	7,400		√
N° 340	8,500		√
N° 400	9,600		√



## Transport

CLASS: 1.1 B  
N° ONU: 0360



## Presentation and Packaging

These detonators are packaged in cardboard boxes and the quantity of pieces depends on the shock tube length.

Product description	Capacity (Pzas/Caja)	Exterior dimensions (cm)
DNE EXSANEL 4.2 M	150	55.1 x 29.5 x 17.1
DNE EXSANEL 12.0 M	80	
DNE EXSANEL 18.0 M	50	

\*Ask Exsa for other presentation formats.

## Storage and warranty

Kept in its original packaging and stored under normal temperature and moisture conditions, in accordance with applicable laws and provisions, the product is warranted for 24 months from the manufacturing date.

Never place by heat sources, machinery or vehicles in operation, combustible or flammable materials, acids or alkali, electric power lines or close to houses, offices or urban areas. Stack the boxes safely and steadily avoiding, heat, shock and impact.