



**JOJNIYA EXPLOSIVES PRIVATE LIMITED**  
**KANGANI, BHILWARA, RAJASTHAN**  
**TECHNICAL DATA SHEET**

## **TIGER POWER 90**

### **Description :**

Tiger Power 90 is a high strength, robust detonator sensitive emulsion explosive. The explosive is grey in color with a firm putty-like consistency. It is packaged in plastic film with wire clips.

### **Application :**

Tiger Power 90 is a water-resistant packaged explosive designed to deliver high energy .It can be used in surface and non gassy underground mining and general blasting.

Tiger Power 90 is a preferred packaged explosive where ground conditions require the application of high energy explosives to achieve adequate fragmentation and movement. The high detonation velocity and the robust nature of Tiger Power 90.Tiger Power 90 cartridges are packaged in film, which readily splits during tamping to maximize coupling and bulk strength within a blast hole.

The high resistance of Tiger Power 90 to dynamic desensitization makes it the preferred explosive for use in tunneling, quarrying, shaft sinking, and other extreme blasting environments.

### **Key Benefits**

- Tiger Power 90 is a maximum energy emulsion formulation with high pre-compression resistance.
- This gives excellent blast results in the toughest ground even with tight drilling patterns as found in shaft sinking and other extreme blasting environments.
- Tiger Power 90 reduces post-blast fumes and improves turn around.

## **Recommendations for Use:**

### **Blast hole Charge Length**

Tiger Power 90 is suitable for use in blast holes of any practical depth providing contained water does not exceed 20m depth.

### **Reactive Ground and Ground Temperature**

**Reactive Ground**—Tiger Power 90 is not suitable for use in the ground containing reactive sulphides.

**Elevated Temperature**— Tiger Power 90 is suitable for use in ground temperatures from 0°C up to 55°C.

However, if your application requires you to operate at elevated temperature, above 55°C please contact your JEPL Technical Representative in advance for further information about product compatibility, sleep time and use.

## **Technical Properties :-**

<b>Density</b>	<b>1.15 ± 0.05 g/cc</b>
Relative Weight Strength as compared to ANFO @0.8 g/cc.	120%
Relative Bulk Strength as compared to ANFO @ 0.8g/cc	162%
Minimum Velocity of Detonation <sup>(2)</sup>	3500 m/s



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### Priming and Initiation

Tiger Power 90 at temperatures higher than 0°C can be reliably initiated by an electric No.8\*, non electric detonator (min. 8\* strength), Detonating cord 5 g/m may also be used to initiate Tiger Power 90 however detonating cords of charge mass lower than 5 g/m are not recommended for initiation of Tiger Power 90.

### Charging

In small diameter blast holes, maximum energy per meter of blast hole can be achieved by tamping the explosive with a wooden tamping rod appropriate to the hole diameter. No metal instrument should be used to tamp explosives. The primer cartridge containing a detonator must not be tamped.

### Sleep-Time within Blast holes

Tiger Power 90 is highly water-resistant, which minimizes leaching and reduces environmental impact.

Undamaged, 'Tiger Power 90' may be charged and fired several days later (provided the product remains within its recommended shelf life).

If the packaging of the explosives is damaged, the sleep time in the blast hole is influenced by the extent of damage to the packaging and by the nature of any water present slitting of cartridges, the explosive will give good performance after two weeks of immersion depending on the hole conditions.

An JEPL technical representative should be consulted if special conditions exist.

### Product Quality

JEPL's packaged explosives are manufactured and loaded using an ISO 9001.

### Packaging

Both the Tiger Power 90 packaging cases and film are color highlighted in red. It is packaged in white plastic film with colored printing. Each box contains nominally 25kg of the product with standard cartridge sizes and counts as follows:

Diameter (mm)	Nominal Length (mm)	Nominal Mass (g)	Cartridges per Box
25	200	125	200
32	235	200	125

### Product Classification

Authorized Name : Tiger Power 90

Shipping Name : Explosive blasting type E

UN No. : 0241

Classification : 1.1D

As per Indian Explosives rules, Tiger Power 90 is a class 2 explosive. All regulations pertaining to the handling and use of such explosives apply.

### Storage and Handling

#### Storage

Store Tiger Power 90 in a suitably licensed magazine for Class 1.1D/Class 2 explosives. The cases should be stacked in the manner designated on the cases. Tiger Power 90 has a



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storage life of up to 6 months in an approved magazine; however, exposure to hot or cold extremes may cause the product to deteriorate prematurely. Tiger Power 90 is best stored at temperatures above 0°C.

### **Disposal**

Disposal of explosive materials can be hazardous. Methods of safe disposal of explosives may vary depending on the user's situation. Please contact an JEPL Technical Services Representative for information on safe practices.

### **Safety**

The post-detonation fume characteristics of Tiger Power 90 make it suitable for non gassy underground and surface blasting applications. Users should ensure that adequate ventilation is provided prior to re-entry into the blast area.

Tiger Power 90 can be initiated by extreme of shock, friction or mechanical impact. As with all explosives, Tiger Power 90 should be handled and stored with care. Tiger Power 90 does not burn easily, but it must be kept clear of flame and excessive heat.

Explosives based on Ammonium Nitrate such as Tiger Power 90 may react with sulphides in the ground and create potentially hazardous situations. JEPL accepts no responsibility for any loss or liability arising from the use of the product in the ground containing sulphides or other reactive material.

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