SOLAR MINING SERVICES
EXPLOSIVES & ACCESSORIES

# TECHNICAL DATA SHEET

# SOLARCAST P

## CAST BOOSTERS

**SAFETY • QUALITY • RELIABILITY**

## DESCRIPTION

**SOLARCAST-P Booster** is a highly energetic explosive composition cast into a cylindrical cardboard/plastic shell. The **SOLARCAST-P Booster** contains PETN (pentaerythritol tetranitrate). **SOLARCAST-P Cast boosters** can reliably be initiated by means of detonating cords containing at least 5.0g/m mass detonating Cords and detonators of 8D strength. **SOLARCAST-P Boosters** are specifically designed to provide reliable initiation of pumped, augured & packaged explosives products. The main intended application being for the use of ANFO and Bulk explosives.

## APPLICATION

All Applications (Underground, Open Pit, Quarry and Construction)

## APPEARANCE

Orange cylindrical cardboard/plastic shell with two longitudinal tunnels in the booster to accommodate either a detonator or detonating cord. One tunnel has straight walls while the other is stepped at the top of the booster to provide a stop for the detonator.

## FEATURES

- Excellent performance with regard to accuracy, high strength
- Excellent water resistance
- Ease and convenience with regard to handling
- Booster suitable for temperatures up to 65°C
- Initiates pumped, augured and packaged explosives (main use for ANFO and Bulk Emulsions)
- High VOD
- Fully protects detonator

## STORAGE

Store under moderate temperatures and dry conditions in well ventilated approved explosives storage facility/box or approved licenced magazine.

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## SHELF LIFE

When stored in cool, dry, well ventilated magazine and handled properly, the maximum shelf life of product is 36 months from date of manufacture.

## SHIPPING INFORMATION

| | |
|---|---|
| **Class / Division** | 1.1 |
| **Group** | D |
| **UN No.** | 0042 |

## PACKAGING

SOLARCAST –P - Cast booster packed in cardboard cases

| Product | Units per case |
|---|---|
| SOLARCAST P – Cast boosters 150g | 80 |
| SOLARCAST P – Cast boosters 400g | 30 |

## TECHNICAL PROPERTIES

| | | |
|---|---|---|
| **MOC of Shell** | Cylindrical Cardboard/plastic shell | |
| **Mass** | 400g | 150g |
| **Booster Diameter(mm)** | 56.5 | 40 |
| **Booster Length (mm)** | 115 ± 2.0 | 95 ± 2.0 |
| **Tunnel diameter (mm)** | 8.0 ± 0.2 | |
| **Nominal Length (mm)** | 10.3 ± 0.2 | |
| **Nominal density** | 1.55 ± 0.05 g/cc | |
| **VOD (m per second)** | 7500 ± 500 | |
| **Shell colour** | Orange | |
| **Water Resistance** | Excellent | |
| **Oil Resistance** | Excellent | |

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## SAFETY

Cast boosters contains molecular explosives which can be initiated by intense heat or friction. As with high explosives, these boosters should be handled and stored with care. Booster must not be allowed to have impact with a solid surface or other boosters, any such collision may cause damage and lead to misfire or un-planned detonation. Do not use detonators that cannot be completely contained within booster, as this could lead to damage of detonator resulting in a misfire or un-planned detonation.

## IMPORTANT INSTRUCTIONS

- Recommended detonator to be a minimum of 8d strength to ensure reliable initiation.
- Recommended detonating cord to be a minimum of 5g/m to ensure reliable initiation.

## NOTE

**Recommendations for use:**
**With detonating cord:** use boosters with detonating cord which has a PETN charge greater than 5g/m. Ensure booster is securely attached to detonating cord by the cord down through one tunnel and tie cord in a loop as per figure 1 below:

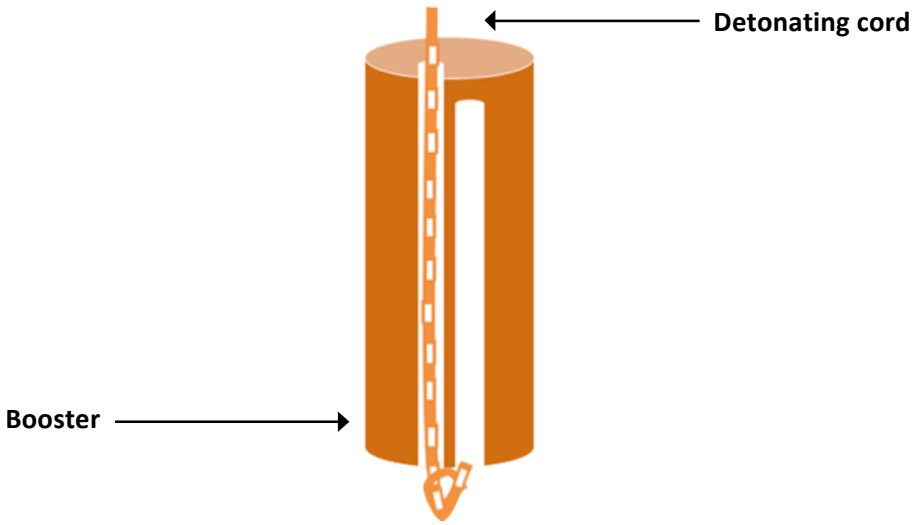


***Figure 1***

Lower complete assembly to desired depth in blast hole, cut detonating cord downline (with approved cord cutter) from its reel and secure on top of blast hole collar. Lift primer (booster and cord) up to desired design depth and secure during loading process of blast hole to ensure proper coupling between booster and explosives. For any subsequent booster on the same downline, unfasten the detonating cord tail, thread the end of the cord through the straight walled tunnel. Re-secure the tail of the cord at the collar, slide or lower the booster to desired location and repeat process.

**With delay detonator:** Thread (insert) detonator through the booster assembly as per figure 2 below:

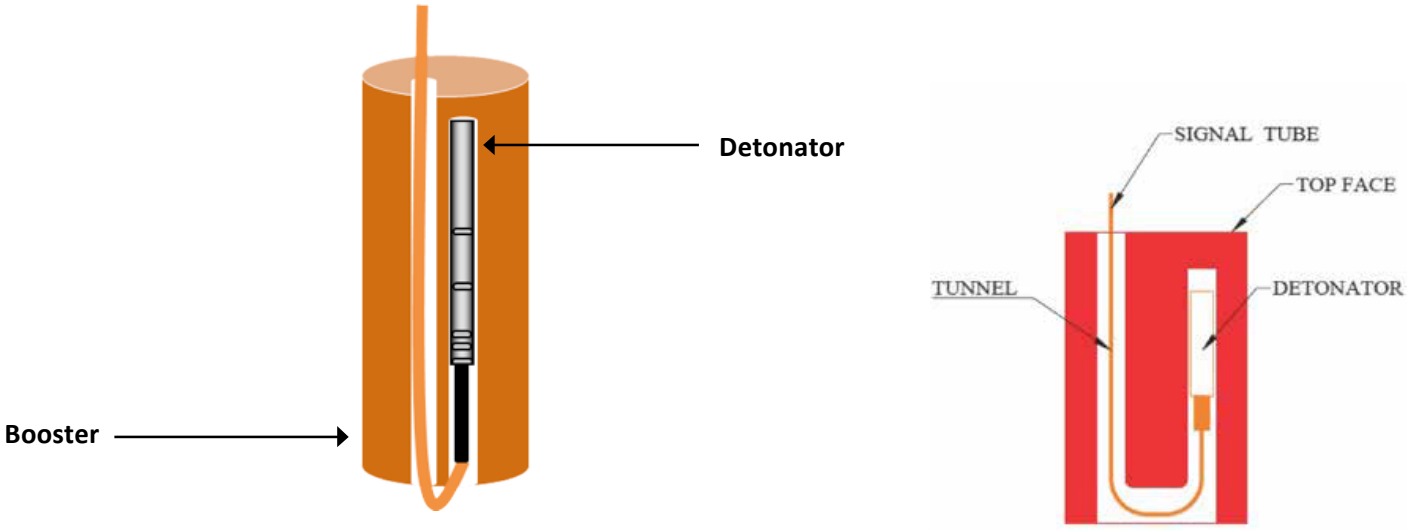


***Figure 2***

Lower complete assembly to desired depth in blast hole and secure tube on top blast hole collar. Lift primer (booster and detonator assembly) up to desired design depth and secure during loading process of blast hole to ensure proper coupling between booster and explosives.

## DISCLAIMER

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