# **GRANATECH** TECHNICAL DATA



Issue 9



# **BENEFITS**

- Quick to apply
- ✓ BS7533 compliant
- High strength
- Economical & cost-effective
- Aesthetically pleasing finish

### Description

Slurry-applied Granatech is a high strength, low modulus mortar developed in response to demands from contractors for a cost-effective material purpose-made for pointing of natural stone and concrete paving units.

The mortar is specially formulated to meet the requirements of architects and engineers requiring compliance with the relevant part of BS 7533.

Granatech can be applied speedily over large areas for effective jointing of all paving units, providing quick and cost-effective jointing when laying wherever there is a large proportion of jointing material to paving unit.

# Uses include:

- Grouting large areas
- Laying cropped setts
- Suitable for pedestrian traffic at 2hrs
- Suitable for vehicular traffic at 6hrs

## Standards

Granatech has been tested in accordance with the relevant parts of the following Standards: BS7533 and B.S. 1881.

# **Specification Outline**

Jointing of paving units shall be carried out using Granatech as manufactured by Parex Ltd. The product must be stored, handled and used strictly in accordance with the manufacturer's instructions.

#### **Quality Assurance**

Parex Limited has an integrated management system. This is externally accredited to: BS EN ISO 9001, BS EN ISO 14001, BS ISO 45001 & BES 6001.

# Typical Properties @ 20°C

#### **Compressive Strength**

2 Hours	4 Hours	1Day	3 Days	7 Days	28 Days
10N/mm <sup>2</sup>	16N/mm <sup>2</sup>	20N/mm <sup>2</sup>	25N/mm <sup>2</sup>	35N/mm <sup>2</sup>	48N/mm <sup>2</sup>

Maximum shrinkage	<0.08%		
Flexural strength	9.3N/mm <sup>2</sup>		
Modulus of Elasticity	23,100N/mm <sup>2</sup>		
Adhesive Strength*	>2.0N/mm <sup>2</sup>		
Density	2175kg/m <sup>3</sup>		
Pot life	30 minutes		

\*Indicative figure only. Minimum bond strengths are prescribed within BS7533 (Part 7) but their attainment is a function of both the mortar characteristics, the nature of the stone and its surface profile. Accordingly, bond strength figures quoted can only be indicative. As a service to customers, Parex can provide test results for individual materials where samples are made available for laboratory testing.





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#### Instructions for Use Preparation

All paving units shall be securely bedded before pointing commences and all surfaces with which the mortar comes into contact clean and dust-free. A strong mortar bedding, free of all friable material, will enhance bond strength.

Ensure that enough mortar is mixed and available for the grouting operation to be completed in one continuous pour.

#### Mixing

For each 25kg bag of Granatech, 4.25 litres of water are required. For single bag mixes, suitable mixing may be achieved using a high torque slow speed drill with a mortar stirrer. For larger mixes, use a standard mixer.

Pour the required quantity of clean water into the mixing vessel. Slowly add the Granatech to the water, continually mixing until a uniformly smooth consistency is obtained.

#### Placing

Prior to placing, joints should be wetted but any standing water should be removed. Granatech can be applied to joints of up to 25mm width however, 6-15mm is the optimum. The mortar slurry should be placed within 30 minutes of mixing. Continuous placing is important, pouring from one side of the work area, fully filling the joints before starting a fresh section.

Granatech may be poured over the paving units safely, though it is essential to dampen their surface prior to the commencement of application.

Once placed, the mortar should be left to stand until it gels, prior to the commencement of cleaning, though the surface must be kept damp during this time by the application of a light spray of water as required.

Once the mortar has gelled, finishing and cleaning to remove any surplus material can proceed using either a proprietary belt cleaner or a soft brush together with a continuous light spray of water.

Granatech may be placed at temperatures between 5°C and 35°C. For placing temperatures outside this range, contact the Technical Service Department.

#### Curing

In general, no special curing is required, however in extremely warm conditions (>25°C) it may be necessary to continuously spray the placed area with water to aid curing and prevent the material from drying too fast.

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# Precautions

#### Health and Safety

Granatech is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs, wash thoroughly with clean water. Should eye contact occur, rinse immediately with plenty of clean water and seek medical advice.

Full health and safety data are given in a Product Safety Data Sheet.

#### Fire

Granatech is non-flammable.

#### **Yield**

Each 25kg bag of Granatech will yield approximately 13.5 litres of mixed material.

#### Storage and Shelf Life

Granatech will have a storage life of 6 months in unopened bags when kept in dry conditions at a temperature between 5°C and 45°C. Storage at higher temperatures and high humidity may reduce shelf life.

### Packaging and Ordering

Granatech is supplied in 25kg valvesack bags:

	Product Code
Natural	ELM570
Mid Grey	ELM571
Dark Grey	ELM572
Black	ELM573
Beige	ELM574
Yorkstone	ELM577

For further information and sales, please contact your local Parex office as listed below.

Parex Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Parex Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Parex Ltd endeavours to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control

