

TEST REPORT

A sample of Super Garnet grit was received and tested for productivity, profile, general cleanliness and dust emissivity.

The following is a field trial report of **Super Garnet** carried out by Qatar Fertilizer Company, Qatar.

Objectives

The objectives of this field trial were:

- To check the high productivity rates claimed for **Super Garnet**
- To compare quality of surface preparation against other brands
- To compare productivity with other brands
- To compare dust emissions between other Garnet and **Super Garnet**

Test Area and Equipment

An area within the plant, which was in the process of refurbishment, was taken as a practical approach to verify the claims and to judge any differences between the **Super Garnet** and coal slag that is currently used.

The steel work in this area was in good condition, but the coatings had commenced their degradation

Two tests were carried out using a 750 cfm compressor producing approximately 110 psi of air and two 600 lb blast pots.

The initial test was carried out by two blasters, one using **Super Garnet** and the other coal slag, simultaneously. Two bags of **Super Garnet** (25 kg each) were compared to

one bag of coal slag (50 kg). These results are tabulated below as Trial-1..

For the second trial, the same pot and same blaster were used, initially with two bags of **Super Garnet** and subsequently with one bag of coal slag. These are given as Trial-2.

The areas treated were measured, profiles taken, general standard of blast cleanliness assessed and the dust emissivity's noted.

Test Results

The field trial yielded the following results:

Trial- 1

PARAMETER	SUPER GARNET	COAL SLAG
Quality used	Grade B(0.5-0.85 mm)	Grade A(0.2-1.45 mm)
Quantity used	50 kg	50 kg
Area blasted	2.32 sq.m	1.67 sq.m
Time taken	8 minutes	7 minutes

Trial- 2

Parameter	Super Garnet	Coal Slag
Quantity used	50 kg	50 kg
Area blasted	2.56 sq.m	1.87 sq.m
Time taken	8 minutes	8.5 minutes

Average Rates Achieved

	Super Garnet	Coal Slag
Area per minute	0.30 sq.m	0.225 sq.m
Area per hour	18 sq.m	13.5 sq.m
Area per unit weight	51.2 sq.m per tonne	37.4 sq.m per tonne

CONCLUSIONS

The following conclusions were made after the field trial:

- **Super Garnet** gave greater productivity than grit by approximately 40%.
- The dust emission of **Super Garnet** was significantly lower than grit.
The surface profiles for both **Super Garnet** and grit were similar. However, **Super**
- **Garnet** gave a more uniform distribution of readings.