

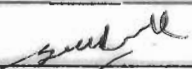
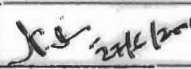
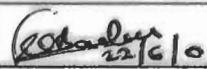
WAP/M/SPECN-1/069/1997 ALT 'a'

GOVERNMENT OF INDIA
(Ministry of Railways)

SPECIFICATION FOR
REDUCING SLAG MIXTURE
(PL NO. 81982719)

Issued by

MECHANICAL DRAWING OFFICE
WHEEL & AXLE PLANT
VELAHANKA, BANGALORE-560 064
I N D I A

		
Dy. CME/W-I	WM/MELT	SUPDT./DES
APPROVED BY	CHECKED BY	PREPARED BY

SPECIFICATION FOR REDUCING SLAG MIXTURE

1.0 SCOPE:

1.1 The specification covers manufacture and supply of reducing slag mixture to Wheel and Axle Plant, Yelahanka, Bangalore - 560 064 in Karnataka State as per conditions of contract and tender papers.

2.0 GENERAL DESCRIPTION:

2.1 Reducing Slag Mixture shall be in a powder form, suitable for making reducing slag during steel making operations to reducing the Oxygen potential in liquid steel.

3.0 JOB REQUIREMENT:

3.1 Reducing Slag Mixture is required to make basic slag at a temperature of 1650 to 1720 °C in 20 MT electric arc furnace. It should promote metal slag interface reactions to bring down oxygen level in the liquid steel.

3.2 Reducing Slag Mixture should be capable of passing through a pneumatic injector.

3.3 Reducing Slag Mixture should be free from dolomite, fluorspar and alkalis like potassium and sodium.

4.0 SIZE:

- (a) 0 to 3 mm
- (b) 0 to 0.4 mm should not exceed 25% of total quantity.

5.0 CHEMICAL COMPOSITION (FOR GUIDANCE ONLY):

(1)	Moisture	:	Traces
(2)	Loss on ignition (LOT)	:	45%
(3)	Calcium Oxide (Cao)	:	35%
(4)	Silica (SiO ₂)	:	10%
(5)	Alumina (Al ₂ O ₃)	:	5%
(6)	Magnesium Oxide (Mgo)	:	5%

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6.0 SHELF LIFE:

Material shall have a minimum of six months shelf life from the date of receipt at Wheel and Axle Plant.

7.0 PACKING:

Material shall be packed in 25 kgs inside polythene lined bags. Use eco friendly bio-degradable packing material.

8.0 MANUFACTURER'S TEST CERTIFICATE:

The supplier shall issue manufacturer's Test Certificate guaranteeing that the material supplied shall fulfil the job requirements as specified vide para (3)

9.0 PERFORMANCE CRITERIA:

With the use of the reducing slag mixture in the furnace and under standard working conditions at WAP, the following shall be fulfilled.

- 9.1 The liquid metal at the "casting pit" shall appear in a "Killed state".
- 9.2 The inner surface of the pouring tube after use, shall not exhibit deposit of metal slag reacting.

10.0 SAMPLING NORMS

10.1 Consignment of this material are usually supplied in 25 kg bags. The number of bags, as sample, shall be selected at random as per Table-I.

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TABLE-I

Lot weigh selected	No. of 25 kgs bags to be be as sample
*Upto 1 MT	02
*Over 1 and less than/ equal to 4 MT	04
*Over 4 and including	10

10.2 From each lot, as indicated in the above table with the help of suitable sampling instrument, 0.25 kg of material shall be taken. This material shall be taken from the top, centre and bottom of each selected bag (containers), sample drawn from each selected bag shall be mixed to form a composite sample. By successive coning and quartering division method, the composite sample shall be reduced to given a final test sample of 150 grams for the chemical analysis and other specified parameters.

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AMENDMENT SHEET

Alt.	DATE	DESCRIPTION	JOB NO.	APPROVED
'a'	31-05-01	Clause 3.1 "in size of approx. 0-3 mm" is deleted and Cl.4.410 added.	3918	<i>J.C. Yarb</i>

<i>[Signature]</i>	<i>J.C. Yarb</i>	<i>[Signature]</i>
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