



11) Publication number:

0 448 244 A3

## **EUROPEAN PATENT APPLICATION**

(21) Application number: 91301771.1

2 Date of filing: 04.03.91

(a) Int. CI.5: **B22D** 41/00, B22D 43/00, B22D 41/46

30 Priority: 17.03.90 GB 9006098

Date of publication of application:25.09.91 Bulletin 91/39

Designated Contracting States:
AT BE DE ES FR GB IT LU NL SE

Date of deferred publication of the search report: 04.11.92 Bulletin 92/45 Applicant: FOSECO INTERNATIONAL LIMITED 285 Long Acre Nechells Birmingham B7 5JR(GB)

Inventor: Mellows, Vincent Edward

Rosenstrasse 5A W-4280 Borken(DE) Inventor: Friede, Klaus Loefflerstrasse 15

W-4223 Voerde 2, (Niederrhein)(DE)

Representative: Moore, John Hamilton Foseco Holding International Limited Group Patents Department 285 Long Acre Nechells Birmingham B7 5JR(GB)

- Anti-skulling material for use in a metallurgical handling vessel.
- The invention provides an anti-skulling material for use in the outlet nozzle of a metallurgical vessel, e.g. a tundish.

By providing a particulate, sinterable or partiallysinterable filler material in granulated form, the granules containing the desired proportion of the particulate constituents, the invention enables greater consistency and uniformity of sintered crust to be formed in the nozzle area during contact with the molten metal in the vessel.



## EUROPEAN SEARCH REPORT

EP 91 30 1771

Category	Citation of document with indic	ation, where appropriate, ges	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)	
Y	FR-A-2 550 126 (TOSHIBA C		1,8,11	B22D41/00	
	C18 (NIS 1, 9			B22D43/00 B22D41/46	
<b>Y</b>	EP-A-0 137 734 (FOSECO IN * claim 11 *	TERNATIONAL)	1,8,11	B22U41/ 40	
<b>A</b>	US-A-4 332 910 (B. E. DUN * claim 11 *	MORTH)	1		
<b>A</b>	US-A-4 113 501 (Y. EDAMOTO * claim 3 *	))	1		
^	GB-A-2 122 180 (CHINA STEE * page 1, line 94 *	EL)	1		
A	DE-C-3 214 168 (H. DISLICE	1)			
				TECHNICAL FIELDS SEARCHED (Int. Cl.5)	
				B220	
			_		
	The present search report has been	<u> </u>		-	
ı	Place of search BERLIN	Date of completion of the search 27 AUGUST 1992	CITO	Examinar D. W.	
	DEVETA	E/ WAGA21 1335	SUTO	N W.	
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: noa-written disciosure		E : earlier patent di after the filing D : document cited L : document cited	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons A: member of the same patent family, corresponding		