

	RM-SPECIFICATION		DOCUMENT STATUS
	Material : Iron Di-sulfide (FeS₂) Item Code: Purpose : Cathode		DRAFT
MATERIAL CODE:	C25	DOCUMENT NO.	5

S.no	Description	UOM	Specification
1.	Physical State / Color	-	Powder / Brass yellow
2.	Assay Content	%	97±1
3.	Grade	-	NA
4.	Mol. Wt.	g/mol	120
5.	Element	%	Percentage
a.	Iron (Fe ⁴⁺)	%	44 to 46
b.	Sulphur (S ²⁻)	%	49 to 51
c.	Silica (SiO ₂)	%	0.5 to 1
d.	Lead (Pb)	%	0.001 to 0.002
e.	Copper (Cu)	%	0.05 to 0.07
f.	Cobalt (Co)	%	0.5 to 1
6.	Melting point	°C	1194
7.	Particle size distribution	µm	200 – 350
8.	Bulk density	kg/m ³	5020
9.	Specific heat	J/ (mol °C)	25.418
10.	Supplier		Jainson Lab India
11.	MSDS no.	-	XXX
12.	CAS no.	-	12068-85-8
13.	Acceptance Criteria		
a.	Visual Acceptance	-	Brass yellow power
b.	Assay Content	%	97±1
c.	Melting point	°C	1194±2
14.	Properties	Test Method	Test Agency
a.	Quantitative & qualitative analysis	ICPMS/XRD/ED-XRF	NABL, IIT-HYD, CMET
b.	Particle size distribution	Sieving & others	RES, NABL, SRR labs
c.	Specific heat & Thermal Conductivity	DSC/TGA	NABL, IIT-HYD, CMET

PREPARED BY:		REVIEWED & APPROVED BY:
RENEWABLE ENERGY SYSTEMS LIMITED		