

	FGD SYSTEM DESIGN BASIS	BHEL DOCUMENT NO.: 04-FW-000-00288	
		DEPARTMENT: FGD	
		REV. NO. 02	DATE 23.09.2019

4.2 Absorbent

Absorbent Name	LIMESTONE
Grain Size	Medium
Bond Index	14.33kWh/Metric-ton

Type of Absorbent	☒ Rock ☐ Powder ☐ Slurry ☐ Others :
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Feed Condition to Absorber	☐ Powder ☒ Slurry 30 wt% ☐ Others :
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Absorbent Composition(*1)			Limestone			Note
			Design	Normal	Guarantee	
CaCO ₃	wt%-d		83.88	-	91.02	
MgCO ₃	wt%-d		4.916	-	4.916	
Dolomite(MgCa(CO ₃) ₂)	wt%-d		N/D	N/D	N/D	
Inert	CaO	wt%-d	47	47-51	51	
	MgO	wt%-d	2.35	0.9-3.8	2.35	
	Cl ₂	wt%-d	<0.015	<0.015	<0.015	
	Al ₂ O ₃	wt%-d	1.19-2.1	1.19-2.1	1.19-2.1	
	Si ₂ O ₃	wt%-d	2.1	2.1-4.5	2.1	
	Fe ₂ O ₃	wt%-d	0.45-1.0	0.45-1.0	0.45-1.0	
	TiO ₂	wt%-d	<0.02	<0.02	<0.02	
	Na ₂ O	wt%-d	<0.16	<0.16	<0.16	
	K ₂ O	wt%-d	<0.01	<0.01	<0.01	
	P ₂ O ₅	wt%-d	Traces	Traces	Traces	
	LOI	wt%-d	38.0-41.3	38.0-41.3	38.0-41.3	
	Total Sulphur	wt%-d	<0.1	<0.1	<0.1	
	Mn ₂ O ₃	wt%-d	<0.12	<0.12	<0.12	
Density	kg/m ³		1400			For volume
	kg/m ³		1700			For torque, drive calculation and structural load calculation
Limestone Slurry Density	kg/m ³		1219			30% Concentration

N/D : Not detectable

(*1) Assumed value