SHARADAA

PETROCHEMICAL | INSULATING CASTABLES

- INSULATING / GUNNING CASTABLES
- ABRASION RESISTANT CASTABLES
- LOW CEMENT CASTABLES
- HIGH PURITY CASTABLES / REGENERATOR TILES
- BURNER BLOCKS / COATING MATERIALS
- HIGH ALUMINA CORUNDUM CASTABLES / BRICKS
- PEEP HOLE BLOCKS
- LOW THERMAL MASS. USE OUR MIDDLE WEIGHT, LIGHT WEIGHT CASTABLES

PETROCHEMICAL | INSULATING CASTABLES

OUR STRENGTHS

- Approved by EIL for use in Petro Chemical Industry
- Sharada offers unique low-density high strength insulation Castables with low thermal conductivity, which can be used in Hot Face
- Sharada insulation Castables are made from high strength cements and synthetic insulating aggregates
- Offer abrasion resistant / CO Resistant Castable, Repair / Coating Materials.
- Take up supply & installation responsibilities
- Products designed for Rodding / Vibro Casting to eliminate site indiscipline

PRODUCTS

- Insulating Castables
- Gunning Castables
- Abrasion Resistant Castables
- Regenerator Tiles / Burner Blocks
- Coating materials for maintenance
- Low Cement Castables
- High purity Castable (96 Al_2O_3 / 0.3 Fe_2O_3)

SUPPLY OF APPLICATION PACKAGE OF PROJECT AND MAINTENANCE

HEATERS, REFORMERS, SRUS, FCCUS, SCUS, CDU / VDU, CO-BOILERS, SULPHUR PIT, STACK, DUCTS

INSULATING CASTABLES | MEDIUM PURITY & HIGH PURITY

PARTICULARS	LITECRETE 055.800	LITECRETE 085.100	LITECRETE 09.130	LITECRETE 1.100	LITECRETE 11.120	LITECRETE 125.110	LITECRETE 145.120	LITECRETE 16.130
Hot Face Temp°C (Max)	800	1000	1300	1000	1200	1100	1200	1300
Bulk Density (gm/cc) (Dried at 110°C) (Max)	0.55	0.85	0.9	1.0	1.1	1.25	1.45	1.6
Permanent Linear Change (%) (Temp x 3 Hrs)	± 1.0 (800°C)	± 1.2 (1000°C)	± 1.0 (1300°C)	± 1.0 (1000°C)	± 1.2 (1200°C)	± 1.0 (1100°C)	± 1.0 (1200°C)	± 1.0 (1300°C)
Cold Crushing Strength (Kgf/cm^2) (Min)								
110°C / 24 Hrs	4	12	25	15	25	35	50	130
800°C / 3 Hrs	2	4	20	7	20	25	30	75
1100°C / 3 Hrs	--	6 (1000°C)	20	10 (1000°C)	15	25	30	75
1300°C / 3 Hrs	--	--	30	--	--	--	50 (1200°C)	90
Thermal Conductivity (Max) ($K cal/m^2/hr/°C$) @ 500°C HF	0.09	0.18	0.2	0.27	0.22	0.31	0.32	0.44
Chemical Analysis (%) (Max) Fe_2O_3	11.0	8.5	1.0	6.0	11.5	3.5	3.5	1.5
Grain Size (mm) (Max)	6.0	6.0	6.0	6.0	6.0	8.0	8.0	8.0
Application Guidelines								
Mixer	P	P	P	P	P	P	P	P
Placement	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T
Water/Mix Temperature °C	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5
Mixing Time (Min.): Dry/Wet	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5

Note : 1. Above are average typical test data subject to reasonable variations. 2. Tested as per BIS 10570: 1983.
3. Type of Mixer VAM with 33RPM. 4. P: Preferred, R: Rodding, V-Vibration, T-Tamping

INSULATING CASTABLES | ZAP SERIES

EIL SPECIFICATIONS / SHARADAA EQUIVALENTS

PARTICULARS	REFINSUL ZAP-014	REFINSUL ZAP-016	REFINSUL ZAP-015	REFINSUL ZAP-017	REFINSUL ZAP-018	REFINSUL ZAP-019	REFINSUL ZAP-020	REFINSUL ZAP-021
EIL EQUIVALENT	TYPE-I	TYPE-II	TYPE-III	TYPE-IV	TYPE-V	TYPE-VI	TYPE-VII	TYPE-AR
Bulk Density (gm/cc) (Dried at 110°c) (Max.)	0.85	1.1	0.9	1.2	1.2	1.45	1.6	2.05
Thermal Conductivity at 500°C hot face (max.) Kcal/m/hr/°C	0.14	0.22	0.2	0.31	0.34	0.4	0.44	0.6
Cold Crushing Strength (Min.) Kg/cm^2								
Dried at 110°C	12	20	25	40	50	85	130	210
Fired at 800°C	4	15	20	25	30	40	75	250 (400°C)
Fired at Service temp.	6 (1100°C)	12 (1100°C)	30 (1300°C)	40 (1300°C)	50 (1300°C)	50 (1300°C)	90 (1300°C)	320 (800°C)
Modulus of Rupture (Min.) Kg/cm^2								
Dried at 110°C	4	12	8	11	13	18	24	60 (400°C)
Fired at 800°C	3	6	7	7	10	14	18	25 (800°C)
Fired at Service temp.	3 (1100°C)	5 (1100°C)	8 (1300°C)	11 (1300°C)	12 (1300°C)	15 (1300°C)	20 (1300°C)	
Permanent Linear Change (%)(Max)								
Fired at 800°C	± 1.0	± 0.8	± 0.3	± 0.2	± 0.2	± 0.2	± 0.2	- 0.1(110°C)
Fired at Service temp.	± 1.6 (1100°C)	± 1.2 (1100°C)	± 1.0 (1300°C)	± 1.0 (1300°C)	± 1.0 (1300°C)	± 0.6 (1300°C)	± 1.0 (1300°C)	-0.2 (500°C)
Chemical Analysis (%)								
Al_2O_3 (Min)	32	32	40	35	35	42	43	15-20
Fe_2O_3 (Max)	8.5	6	1	3.5	1.5	1.5	1.5	70-75 (SiO2)
Application Guidelines								
Mixer	P	P	P	P	P	P	P	P
Placement	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T	R/V/T
Water/Mix Temperature °C	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5
Mixing Time (Min.): Dry/Wet	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5

Note : 1. Above are average typical test data subject to reasonable variations. 2. Tested as per BIS 10570: 1983. 3. Type of Mixer VAM with 33RPM
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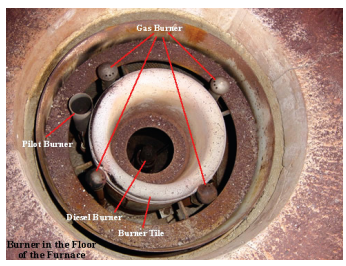

DENSE CASTABLES

PARTICULARS	REFCAST C	REFCAST HA PLUS	PLASCRETE 90D
GENERAL PROPERTIES			
Service Temp°C (Max)	1500	1850	1600
Grain Size (MM) (Max.)	5.0	5.0	3.0
Water Required to Mix (%)	10 - 12	8 - 10	NA
Reversible Thermal Expansion	0.55	0.9	
PHYSICAL PROPERTIES			
Bulk Density (gm/cc) (Dried at 110°C)(Min.)	2.1	2.75	2.9
Cold Crushing Strength (kgf/cm^2)			
1 Day	200	200	
110°C	380	400	900
1100°C	250	300	1200
1500°C	500	450	1500
MOR, Kg/Cm^2			
110°C	65	75	140
1100°C	30	35	180
1500°C	85	90	250
THERMAL PROPERTIES			
Refractoriness°C (Min)	1650	+1900	--
Permanent Linear Change (%)(Max)			
800°C	-0.06	-0.05	--
1100°C	-0.12	-0.08	± 0.30
1500°C	-0.85	0.20	--
Thermal Conductivity (Kcal/hr/m/°C)			
400°C	0.75	1.40	--
600°C	0.85	1.42	2
800°C	0.85	1.46	2.2
CHEMICAL PROPERTIES(%)			
Al_2O_3 (Min)	50	96	80
Fe_2O_3 (Max)	1.5	0.3	1
SiC	-	-	7.5
ZrO_2	-	-	2.5
APPLICATION GUIDELINES			
Mixer	P	P	P
Placement	V/T	V/T	V/T
Water/Mix Temperature °C	20 ± 5	20 ± 5	20 ± 5
Mixing Time (Min.): Dry/Wet	2/5	2/5	2/5

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