

PACKAGE-7 A

TENDER- 1/2017-18

NAME OF BRANCH:- GLASS & CEREMIC ENGG.

NAME OF LAB:- GLASS & CEREMIC ENGG.

S.No	Equipment Description	QUANTITY/UNIT REQUIRED	BID RATES OF EQUIPMENT PER UNIT(Rs.)	APPLICABLE RELEVANT TAXES PER UNIT(Rs.)	TOTAL COST OF EQUIPMENT PER UNIT(Rs.)
1	<p>Planetary Ball mill PM-100: power = 750 W Protection code = IP 30 consumption = ~ 1250 W (VA) W x H x D closed = 630 x 468 x 415 mm Net weight = ~ 86 kg Workplace related emission value = LpAeq < 85 dB(A) Material feed size* = < 10 mm Final fineness* = < 1 µm, for colloidal grinding < 0.1 µm Material of grinding tools = zirconium oxide Grinding jar sizes = 125 ml / 500 ml</p>	1			
2	<p>High Temp. furnace :Model = BLF 17/3 Maximum operating temperature (oC) = 1700 Capacity(l) = 3 Heated by MoSi2 elements Internal dimensions (mm – h x L X b) = 190x150 x 150 External dimensions (mm – h x w x d) = 975 x 750 x 530 Heat up time to 100oC below maximum temperature (mins) = 80 Maximum power (kW) = 5 Net weight(kg) = 137</p>	1			
3	<p>Electric furnace 30x30x40cm.Temp.1000oc :Furnace firing Chamber size (WxDxH) = 380 x 300 x 460 Power KW = 4.5 , Single Phase 220 Volt, 25 amps Spiral wound Heating Elements using High Grade Kanthal wire Fully programmable Temperature Controller TCS1</p>	2			
4	<p>Glass melting Furnace (Gas fired) :1. A robust and compact gas kiln used in the enamelling of metals. Chamber size: W 300 x D 300x H 300 mm. 2. Light weight with ceramic fibre woolled insulation (instead of brick insulation) 3.The outer casing is made of double walled thick P.C.R.C. sheet, reattached with thick perforated sheet on the bottom portion, painted wit attractive stove enamel 4. Energy saving burner, Heat resistant lining.</p>	2			




	Spectral				
5	<p>Optical pyrometer :Measurement range =+385 °C ... +1600 °C range = 1,6 μm Accuracy = ± (0,3 % Tmeasurement ±1 °C) Repeatability = ± (0,1 % Tmeasurement ±1 °C) Optical resolution = 300:1 Response time = 10 ms Viewer = Double laser ray class II (<1 mW) Focus =12 mm @ 3,6 m Battery = 6 Volt D.C</p>	1			
6	<p>Refractoriness Under load furnace :loading mode direct press working temperature Under load: 1700; creep: 1550 Max. temperature 1750 heating-up rate 015/min temperature accuracy in soaking 2 measuring range of deformation 0 -10 mm loading range 100 -1000N transformer power 12kVA power supply 220V 50Hz dimension Furnace 960 x 600 x 1950mm control cabinet 1300 x 650 x 1200mm weight- 530kg Approx</p>	1			
7	<p>Gas Fired Raku Kiln (1200oc):STANDARD Raku kiln 24"X 26"</p> <ul style="list-style-type: none"> • Easy-Lift firing chamber • Heavy-gauge steel construction <p>Castable refractory floor</p> <ul style="list-style-type: none"> • Firing chamber lined with high-density fiber • Water column gauge for accurate firing • 100% safety shut-off valve • Comprehensive owner's manual and firing guide • Stainless steel or galvanized hood (optional) • Electric Auto-Lift for additional ease and safety (optional) • 4" casters (optional) <p>Plumbing is for natural gas ends in main shutoff - 3/4" pipe Propane needs low pressure regulator \$54.95- 2 stage from 5-15 psi Clearance needed 104" min</p>	2			

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8	<p>Tensile strength testing machine :Model =UTM - 500 Capacity KN = 500 Tensile Clearance or full decended piston position mm =50-700 Max. clearance for compression test mm = 0-700 Distance between columns mm = 450 Piston stroke mm = 200 Max. Straining speed of No load mm/min = 300 Power supply = 3 phase , H.P. (Total) = 1.5 Overall Dimensions (Approx) mm = 2000x800x1900 Weights in kgs.(Approx) = 1400 STANDARD ACCESSORIES: Tension Test jaws for round = (i) Specimen dia mm= 10-20 (ii) Pair of compression Plates = 120</p>	1			
9	<p>Piling resistance test apparatus :SCOPE =ABRASION / PILLING-Flat Woven, Knitted and Certain non-woven fabrics No. Of specimens =1 - 4 area of test specimen= 6.45 cm² pressure on test specimen =9 kPa (apparel),12 kPa (upholstery) Rotational speed of outer pegs= 47±2.5 r/min. Drive (speed) ratio of Outer pegs: inner pegs= 32.3 Total Stoke of outer & inner pegs =60.5±0.5 mm Circumferential parallelism of sample holder to abrading tables =±0.05 mm</p>	1			
10	<p>Thermal Expansion Apparatus upto 1000oC. Temperature Range = RT to 1,000°C Furnace = Kanthal Wire Thermocouple = Type "N" Sample Holder and Probe Rod = Fused Quartz Sample Size (max) = 50 mm long by 20 mm diameter LVDT Displacement Range =±0.100 inch (±2.54 mm) Displacement Resolution = 0.00002 millimeter or 0.02 microns PLC Resolution for a 1" Sample = 0.00009% Reproducibility Range = ± 0.004 PLC (± 1 µm / ± 40 µ-inches) Temperature Control =20-segment, PID Controller with Melting Point Protection Heat-up Rate = 1 to 30°C/minute at 0.01°C increments Factory Calibration =1" rod of high purity platinum Secondary Calibration Sample = 1" high alumina included Footprint (open) L x D x H= (710 x 360 x 380 mm) Requirements = 240 VAC, 20 A, 50 Hz</p>	2			

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High Temperature Furnace (1400oc) Inside Chamber Size = 300 x 300 x 400 mm (12"x12"x12" , 12 Liter)
 Standard Working Temperature = 1350oC (continuous)
 Maximum Working Temperature = 1400oC (< 3 hrs)
 Temperature Control = 30 steps programmable and PID automatic control
 Heating Rate = 0~ 10.C/ min (suggestion: =< 10.C)
 Temperature Accuracy = +/- 1 .C
 Furnace structure = double shell with fan cooling
 Heating Element = High quality SiC heater
 Thermocouple = S type
 Working Voltage = AC 380V Three Phases 60/50 Hz (or according to your requirement)
 Max. Power = 6 KW
 550 x 540 x 820 mm
 140 kg

Outside Size =
 Net Weight =

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Nihil

FULL SIGNATURE OF BIDDER WITH SEAL