

F-06/02

Issue Date: 18/08/2020

Rev. No: 09 LAB 037

**Accreditation No: LAB 037** 

#### Awarded to

# Glass & Ceramics Research Centre (GCRC), Pakistan Council of Scientific & Industrial Research (PCSIR) Labs. Complex. Lahore 54600, Pakistan.

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **24-08-2006** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of ISO/IEC 17025:2017.

The accreditation requires regular surveillance, and is valid until 16-12-2025.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

#### PAKISTAN NATIONAL ACCREDITATION COUNCIL

<u>18-09-2025</u>	SD
Date	Director General



F-06/02

Issue Date: 18/08/2020

Rev. No: 09 LAB 037

#### **Testing Laboratory.**

Accreditation scope of Glass & Ceramics Research Centre (GCRC), Pakistan Council of Scientific & Industrial Research (PCSIR) Laboratories Complex, Lahore 54600, Pakistan.

Permanent laboratory premises

Materials/ Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577- 1:2003)/ Internal method reference			
Glass & Ceramics Research Centre (GCRC) Laboratories						
Cement	Physiochemical Testing	Moisture Content Loss on ignition (LOI) Acid Insoluble Residue (IR) Silica (SiO <sub>2</sub> ), Dry Alumina (Al <sub>2</sub> O <sub>3</sub> ), Dry Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) Calcia (CaO), Dry Magnesia (MgO), Dry Soda (Na <sub>2</sub> O) Potash (K <sub>2</sub> O) Sulphur trioxide (SO <sub>3</sub> ), Dry	ASTM C114;2018			
	Phases	Lime Saturation Factor (LSF) Tricalcium Silicate (C3S) Dicalcium Silicate (C2S) Tricalcium Aluminate (C3A) Tetracalcium Aluminoferrite (C4AF) Free Moisture	PS 232:1983 [5.1] ASTM C 150:2022			
		Loss on ignition (LOI)  Silica (SiO <sub>2</sub> ), Dry  Alumina (Al <sub>2</sub> O <sub>3</sub> ), Dry  Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	ASTM C 25:2019			

<u>18-09-2025</u>	SD
Date	Director



F-06/02

Issue Date: 18/08/2020

Rev. No: 09 LAB 037

		Calcia (CaO), Dry	
		Magnesia (MgO), Dry	
Limestone		Soda (Na <sub>2</sub> O)	
	Chemical Testing	Potash (K <sub>2</sub> O)	
		Carbon dioxide (CO <sub>2</sub> )	
		Calcium Carbonate (CaCO <sub>3</sub> )	
		Magnesium Carbonate (MgCO <sub>3</sub> )	
		Total Sulfur (S)	
		Total Carbon (C)	
		Combined (R <sub>2</sub> O <sub>3</sub> )	
		Dimensions	GS SASO 1024:1998 [2] BS 31:1999 [2] BS EN 14688 :2006
	Physical Testing	Dangerous Substance	BS-EN 14688:2006[4.9] ASTM C 738::2016[6]
Sanitary Wares: White bodies (Porous/Vitreous)		Water Absorption	GS-SASO 1024:1998 [2] BS 3402:1969 [6] ASTM C 97:2018 [7-9]
		Crazing	GS-SASO 1024:1998 [3] BS 3402:1969[7] ASTM C 424:2020 [5-6]
		Resistance to Attack Test	GS-SASO 1024:1998 [4-7]
		Thickness	GS SASO 1024:1998[9]
		Marking	GS-SASO 1024:1998[9]
		Free Moisture	ASTM C 323:2016
		Loss on ignition (LOI)	
		Silica (SiO <sub>2</sub> ), Dry	
		Combined (R <sub>2</sub> O <sub>3</sub> ), Dry	
		Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	
White ware Clays	Chemical Testing	Alumina (Al <sub>2</sub> O <sub>3</sub> ), Dry	
		Calcium Oxide, (CaO), Dry	
		Magnesium Oxide, (MgO), Dry	
		Carbon, (C) Dry	

<u>18-09-2025</u>	SD
Date	Director



F-06/02

Issue Date: 18/08/2020

Rev. No: 09 LAB 037

		Calcium Carbonate, (CaCO <sub>3</sub> )	
		Magnesium Carbonate, (MgCO <sub>3</sub> )	_
		Carbon Dioxide, (CO <sub>2</sub> )	
		Dangerous substances	ISO 10545 -15:2021 [5-10]
	Chemical Testing	Water absorption	ASTM C 373;2016 [6- 8]
		Crazing	ASTM C 554:2016 [6,7]
		Resistance to:	
Tiles		I- chemical.	ASTM C 650:2014 [4-
		II-staining,	9]
		III-burning	ASTM C 1378:2014 [6-
		9	7]
		Thickness	ISO 10545 -2:1995 [3]
	<b>Physical Testing</b>	Dimensions	ISO 10545 -2:1995
		i. Length	[2,4-6]
		ii. Width	
		iii. Straightness	
		iv. Rectangularity	
		v. Flatness	

<u>18-09-2025</u>

Date

SD

Director