

F-06/02

Issue Date: 18/08/2020

Rev. No: 09 LAB 038

**Accreditation No: LAB 038** 

#### Awarded to

# Applied Chemistry Research Centre (ACRC), 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 16-06-2025.

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

| 25-04-2024 | sd               |
|------------|------------------|
| Date       | Director General |



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#### **Testing Laboratory.**

Accreditation scope of Applied Chemistry Research Centre (ACRC), Pakistan Council of Scientific & Industrial Research (PCSIR) Laboratories Complex, Lahore 54600, Pakistan.

**Permanent laboratory premises** 



| Materials/<br>Products<br>tested | Testing field (e.g. environmental testing or mechanical testing) | Types of test/<br>Properties measured                                                                                                                          | Reference to standardized<br>method (e.g. ISO 14577-<br>1:2003)/ Internal method<br>reference |
|----------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                  |                                                                  | 1. Textile Laboratory                                                                                                                                          |                                                                                               |
| Textiles                         | Physical Testing                                                 | Colorfastness to Crocking:<br>Crock meter Method                                                                                                               | AATCC 8-2016                                                                                  |
|                                  |                                                                  | Colour Fastness to Domestic & Commercial Laundering                                                                                                            | ISO 105 C06 (C2S):2010                                                                        |
|                                  |                                                                  | Colour Fastness to Domestic<br>& Commercial Laundering<br>using a Non-phosphate<br>Reference Detergent<br>Incorporating a Low-<br>temperature Bleach Activator | ISO 105 C08:2010                                                                              |
|                                  |                                                                  | Colour Fastness to Dry<br>Cleaning                                                                                                                             | ISO 105 D01:2010                                                                              |
|                                  |                                                                  | Colour Fastness to Water                                                                                                                                       | ISO 105 E01:2013                                                                              |
|                                  |                                                                  | Colour Fastness to Sea-water                                                                                                                                   | ISO 105 E02 :2013                                                                             |
|                                  |                                                                  | Colour Fastness to<br>Perspiration                                                                                                                             | ISO 105 E04:2013                                                                              |
|                                  |                                                                  | Colour Fastness to Rubbing                                                                                                                                     | ISO 105 X12:2016                                                                              |
|                                  |                                                                  | Fabric Propensity to Surface<br>Pilling, Fuzzing or Matting-<br>Pilling Box Method                                                                             | ISO 12945-1:2020                                                                              |
|                                  |                                                                  | Fabric Propensity to Surface<br>Pilling, Fuzzing or Matting-<br>Modified Martindale Method                                                                     | ISO 12945-2:2020                                                                              |

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|----------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Textiles                                     | Textiles Physical Testing                                        | Abrasion Resistance of<br>Fabrics by the Martindale<br>Method (Specimen<br>Breakdown) | ISO 12947-2:2016                                                                              |
|                                              |                                                                  | Dimensional Changes of<br>Fabrics After Home<br>Laundering                            | AATCC 135-2018                                                                                |
|                                              |                                                                  | Dimensional Changes of<br>Garments After Home<br>Laundering                           | AATCC 150-2018                                                                                |
|                                              |                                                                  | Linear Density of Yarn (Yarn<br>Number) by the Skein Method                           | ASTM D 1907/D1907M-12                                                                         |
|                                              |                                                                  | End (Warp) and Pick (Filling)<br>Count of Woven Fabrics                               | ASTM D 3775-17                                                                                |
|                                              |                                                                  | Mass per Unit Area (Weight) of Fabric                                                 | ASTM D 3776/D3776M-20                                                                         |
|                                              |                                                                  | Colour Fastness: Grey Scale<br>for Assessing Change in<br>Colour                      | ISO 105 A02:1993                                                                              |
|                                              |                                                                  | Colour Fastness: Grey Scale for Assessing Staining                                    | ISO 105 A03:2019                                                                              |
|                                              |                                                                  | 2. Leather Laboratory                                                                 |                                                                                               |
|                                              | Chemical Testing                                                 | Cr-VI Content in Leather                                                              | SLC 22 (IUC18)<br>ISO 17075:2017                                                              |
|                                              |                                                                  | Pentachlorophenol in Leather                                                          | CLRI & Freiburg<br>Method:1991                                                                |
| Leather & Leather Made-ups  Physical testing |                                                                  | Formaldehyde Content in Leather                                                       | SLC 23 (IUC 19)<br>ISO 17226::2018                                                            |
|                                              |                                                                  | pH Value of Leather Extract                                                           | IUC 11, SLC 13<br>ISO 4045:2018                                                               |
|                                              | Physical testing                                                 | Tensile strength and                                                                  | IUP 6, SLP 6                                                                                  |
|                                              |                                                                  | percentage extension                                                                  | ISO 3376 :2020                                                                                |
|                                              |                                                                  | Colour Fastness to Circular<br>Rubbing                                                | SLF 5 BS1006:UK-LC                                                                            |
|                                              | 25-04-2024                                                       | Tear Load (Double edge)                                                               | IUP 8, SLP 7<br>ISO 3377-2: 2016                                                              |

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|----------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                              |                                                                  | Tear Resistance (Single edge ) for protective gloves Abrasion Resistance for                                                                                                                                                                       | EN ISO 388:2016 + A1:2018 (6.4) EN ISO 388:2016 + A1:2018                                     |
|                                              | 3                                                                | protective gloves Water Vapour Transmission for protective gloves Pesticide Residue Laboratory                                                                                                                                                     | (6.1)<br>BS EN 21420:2020<br>(6.3)                                                            |
|                                              |                                                                  | Residue Determination                                                                                                                                                                                                                              |                                                                                               |
| Fruits,<br>vegetables<br>and cereals         | Chemical testing                                                 | <ul> <li>Heptachlor</li> <li>Malathion</li> <li>Chlorpyrifos</li> <li>Aldrin</li> <li>Dieldrin</li> <li>Cypermethrin</li> <li>Deltamethrin</li> <li>Permethrin</li> <li>Bifenthrin</li> </ul>                                                      | AOAC 998.01:2023<br>(Validated)                                                               |
| Fruits,<br>Vegetables,<br>Cereals &<br>Crops | Chemical testing                                                 | 1. Insecticides  • Heptachlor, • Malathion • Chlorpyrifos • Aldrin • Dieldrin • Cypermethrin • Permethrin • Deltamethrin • Bifenthrin • Endosulphan I • Endosulphan II • HCH • Dichlorvos • Fipronil • 4,4'-DDT • Lamba Cyhalothrin • Chlorfenopyr | AOAC 2007.1:2023<br>(Validated)                                                               |

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|----------------------------------------------|------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                              |                                                                  | 2. Fungicides                                     |                                                                                               |
| Fruits, Vegetables, Cereals & Crops          | Chemical testing                                                 | Determination of Lead (Pb)                        | AOAC 999.11:2023 & 999.10:2023 (Validated)                                                    |
| Plant growth<br>Regulator<br>(Formulation)   |                                                                  | Naphthyl Acetic Acid                              | PRL/TMD/04                                                                                    |
| Milk & Milk<br>Products                      |                                                                  | Chlorpyrifos Pendimethalin Bifenthrin             | AOAC2007.1:2023 (Validated)                                                                   |
| Fruits,<br>Vegetables,<br>Cereals &<br>Crops | Chemical testing                                                 | Dimethoate Chlorothalonil Tetraconazole           | AOAC 2007.1:2023<br>(Validated)                                                               |
|                                              |                                                                  | 4.Fertilizer Testing Laborator                    | у                                                                                             |
| Fertilizer                                   | Chemical Testing                                                 | Potassium Sulphate                                | PS1501:2011 (Rev)                                                                             |
|                                              | 5.                                                               | Drug Residue Laboratory                           | •                                                                                             |
| Meat                                         | Chemical testing                                                 | Determination of Chloramphenicol residue in meat. | LLC/DRL/TM/001<br>(USP 38, NF 33 2015<br>Analytica Chimica Acta,<br>2005, 535, 33-41)         |

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|------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                  | Determination of Cannabidiol                                                        | LLC/DRL/TM/02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                  | (CBD)                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | 6. Oil and Fat Laboratory                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | Free Fatty Acids (FFA) in                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Chemical testing                                                 | Crude & Refined Fats& Oils                                                          | AOCS:2017(Ca 5a-40)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                  | Peroxide value (POV) in Fats                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | & Oils                                                                              | AOCS:2017(Cd 8b-90)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                  | Moisture and Volatile Matter                                                        | AOCS:2017 (Ca 2b-38)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                  | in Butter, Fats, Margarines &                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | Oils.                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | Refractive Index of Fats &                                                          | AOCS:2017 (Cc 7-25)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                  | Oils                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | Iodine Value of Fats & Oils                                                         | AOCS:2017 (Cd 1d-92)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                  | Saponification value of Fats                                                        | AOCS 2017 (Cd 3-25)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                  | and Oils                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | Acid value                                                                          | AOCS 2017 (Cd 3d-63)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 7                                                                | 7. Paper Testing Laboratory                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | Moisture Content                                                                    | TAPPI T412-om:2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Board Physical Testing                                           | Grammage                                                                            | TAPPI T410-om:2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1                                                                | 8. Salt Testing Laboratory                                                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                  | Loss of Mass                                                                        | ISO 2483:1973                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Chamical Tasting                                                 | Calcium (Ca <sup>++</sup> )                                                         | ISO 2482:1973                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Salt Chemical Testing                                            | Magnesium(Mg++)                                                                     | ISO 2482:1973                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                  |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                  | environmental testing or mechanical testing)  Chemical testing  7  Physical Testing | environmental testing or mechanical testing  Determination of Cannabidiol (CBD)  6. Oil and Fat Laboratory  Free Fatty Acids (FFA) in Crude & Refined Fats& Oils  Peroxide value (POV) in Fats & Oils  Moisture and Volatile Matter in Butter, Fats, Margarines & Oils.  Refractive Index of Fats & Oils  Iodine Value of Fats & Oils  Saponification value of Fats and Oils  Acid value  7. Paper Testing Laboratory  Moisture Content  Grammage  8. Salt Testing Laboratory  Loss of Mass  Calcium (Ca**) |

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| Petroleum<br>Products                                                  | Physical Testing                                                 | Flash Point                           | ASTM D 92-18                                                                                  |  |
|                                                                        | 10. Polymer Testing Laboratory                                   |                                       |                                                                                               |  |
| Polymer<br>Material:<br>Rubber,Vulca<br>nized or<br>Thermoplastic<br>s | Physical Testing                                                 | Density                               | ISO 1183-1:2019                                                                               |  |

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