

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-PL-18529-01-00 according to ISO/IEC 17025:2005

Period of validity: 20.12.2017 to 19.12.2022

Date of issue: 20.12.2017

Holder of certificate:

**Al-Jubail Petrochemical Co. (KEMYA)**  
**Quality Assurance Laboratory**  
**Tareeq 183, Jubail Industrial City**  
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**31961 AL-JUBAIL**  
**SAUDI ARABIA**

Tests in the fields:

**selected chemical and physico-chemical tests of industrial samples (Linear Low Density Polyethylene - LLDPE, Low Density Polyethylene - LDPE, and their additives - EPDM, Ethylene Propylene Diene Monomer Rubber - PBR, Poly-butadiene Rubber - HB, Halo-Butyl - CB, Carbon Black) and plant and waste water**

Abbreviations used: see last page

### **1 Chemical and physico-chemical analysis of polymers - Linear Low Density Polyethylene (LLDPE), Low Density Polyethylene (LDPE) and their additives**

ASTM D1003 2011-04	Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics <i>(superseded standard)</i>
ASTM D1238 2010-02	Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer <i>(superseded standard)</i>
ASTM D1505 2010-07	Standard Test Method for Density of Plastics by the Density-Gradient Technique

ASTM D4883 2008-11	Standard Test Method for Density of Polyethylene by the Ultrasound Technique <i>(withdrawn standard)</i>
ASTM D5630 2006-09	Standard Test Method for Ash Content in Plastics <i>(superseded standard)</i>
ASTM D6247 2010-08	Standard Test Method for Determination of Elemental Content of Polyolefins by Wavelength Dispersive X-ray Fluorescence Spectrometry
EXXON D-3.14 1999-06	Polyethylene Blow Film Extrusion and Film Appearance Rating by COLLIN Extruder
KEMYA SOP 015 2012-06	Anti Oxidant Determination by High Performance Liquid Chromatography
KEMYA SOP 018 2012-06	Determination of Slip and Tinuvin by FTIR
KEMYA SOP 021 2016-06	Estimation of Tetrahydrofuran (THF) in M-1 Catalyst, by Gas Chromatography
KEMYA SOP 028 2013-05	Density of Polyethylene Resin by Fourier Transform Near InfraRed (FT-NIR) Spectroscopy, Multi Purpose Analyzer (MPA)
KEMYA SOP 043 2012-09	Determination of Gel Defects by Blown Film OCS Automatic Gel Counting & Online Haze Measurement
KEMYA SOP 151 2015-03	Determination of Slip and Tinuvin by Thermo 6700 FT-IR

## **2 Chemical and physico-chemical analysis of plant and waste water**

ASTM D1125 2009-05	Standard Test Methods for Electrical Conductivity and Resistivity of Water <i>(superseded standard)</i>
ASTM D1252 2006-02	Standard Test Methods for Chemical Oxygen Demand (Dichromate Oxygen Demand) of Water <i>(superseded standard)</i>

ASTM D1293  
2012-01                      Standard Test Methods for pH of Water

ASTM D7573  
2009-10                      Standard Test Method for Total Carbon and Organic Carbon in  
Water by High Temperature Catalytic Combustion and Infrared  
Detection  
*(superseded standard)*

**3        Chemical and physico-chemical analysis of Ethylene Propylene Diene Monomer (EPDM),  
Polybutadiene Rubber (PBR), Halo Butyl (HB) and Carbon Black (CB)**

ASTM D1238  
2013-08                      Standard Test Method for Melt Flow Rates of Thermoplastics by  
Extrusion Plastometer

ASTM D1510  
2016-11                      Standard Test Method for Carbon Black - Iodine Adsorption  
Number  
*(superseded standard)*

ASTM D1646  
2015-12                      Standard Test Methods for Rubber - Viscosity, Stress Relaxation,  
and Pre-Vulcanization Characteristics (Mooney Viscometer)

ASTM D2084  
2011-12                      Standard Test Method for Rubber Property - Vulcanization  
Using Oscillating Disk Cure Meter  
*(superseded standard)*

ASTM D2414  
2016-01                      Standard Test Method for Carbon Black-Void Volume at Mean  
Pressure

ASTM D5667  
2015-06                      Standard Test Method for Rubber From Synthetic Sources -  
Total and Water Soluble Ash

ASTM D6047  
2015-11                      Standard Test Methods for Rubber, Raw - Determination of 5-  
Ethylidenenorbornene (ENB) or Dicyclopentadiene (DCPD) in  
Ethylene-Propylene-Diene (EPDM) Terpolymers  
*(superseded standard)*

**abbreviations used:**

ASTM	American Society for Testing and Materials
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
KEMYA SOP	Standard Operation Procedure for Inhouse-Methods of KEMYA