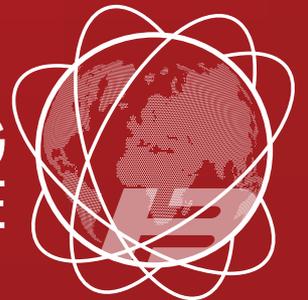


BAHRA
CABLES



PVC
COMPOUNDING

**EXPORTING
WORLD WIDE**





American Systems REGISTRAR
 5281 Clyde Park Ave. 5th, Suite 1
 Wyoming, MI 48509 USA
 www.asrworldwide.com
 616-942-0273



American Systems Registrar, LLC, a provider of third-party system registration and accredited by the ANSI-ASQ National Accreditation Board attests that:

BC CONDUIT PLANT

RING ROAD, MAKAH EXPRESS WAY, CPC INDUSTRIAL PARK
 JEDDAH, BAHRA KINGDOM OF SAUDI ARABIA

with a scope of:

DESIGN AND MANUFACTURING OF CONDUITS AND FITTINGS, CABLES MANAGEMENT SYSTEMS AND PVC COMPOUNDS

has established a quality management system that is in conformance with the International Quality System Standard

ISO 9001:2015

ASR Certificate Number: 5107
 Date of Certification: January 18, 2019
 Date of Certification Expiration: January 17, 2022
 Revision:
 Re-issue Date:



Richard Kintner
 President

CERTIFICATE OF REGISTRATION



Accredited Laboratory

A2LA has accredited

BAHRA ADVANCED CABLES MANUFACTURER

Jeddah, Saudi Arabia

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 2nd day of August 2018.

[Signature]

Vice President, Accreditation Services
 For the Accreditation Council
 Certificate Number 4807.02
 Valid to September 30, 2020
 Revised March 4, 2020

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.



INTRODUCTION

BC PVC was established in 2013 to serve Saudi & GCC Market. It is based inside Bahra Cables Company, located 45 km from Jeddah.

The company has a great production capacity with high flexibility. This, along with a special attention to research and development, allows the company to serve its customer's needs at the perfect way.

BC PVC started production of a variety of high quality plasticised and unplasticised polyvinyl chloride (PVC) for Wires, Cables and other applications with an annual output capacity of over 36,000 MT. Company has the flexibility to produce a versatile range of:

- Soft and flexible PVC Compound for cables (Sheathing, Insulation, bedding) and other applications.
- Polypropylene rope of non-hygroscopic filler.
- Rigid UPVC Compounds to serve our consumptions and market requirement.

The PVC Compound granules comply with the American standards (ASTM, UL), European standards (IEC, BS), and Saudi and Gulf requirements.

The company sources polyvinyl chloride feedstock from Saudi Basic Industries Corporation (SABIC) & Mitsubishi Corporation (SHINTECH) and to produce granules used for cables jacketing, insulating and other applications.

The factory built with the expertise of the European latest technologies: -

- Pelletized Buss Company of Switzerland, is completely integrated and equipped with the latest technologies in the field.

BASED ON QUALITY IS OUR TARGET

BC PVC believe that a continuous research activity is the only way to offer products that are always innovative, competitive and more performing

BC PVC applies strict material selection criteria (that would qualify only the prime ingredients) As well as in-process controls to continuously ensure a high standard high-grade consistently optimized product. for that reason, we have technical laboratories with latest version laboratory equipment technology complying with standard requirement and customer satisfaction,also our lab. Is ISO 17025 accredited.

QUALITY MANAGEMENT SYSTEM (QMS):

BC PVC has established and applies an upgraded Quality Management System (QMS) and is certified in accordance with ISO 9001: 2015 the highest standard of quality system and excellence.



BC PVC STANDARDS

BC PVC products are manufactured and tested in accordance with:-

BS EN 50363-3	Part 3 PVC insulation Compounds
BS EN 50363-4	Part 4 PVC Sheathing Compounds
IEC 60502-1&2	Part 1 & 2 Insulation Compounds.
IEC 60502-1&2	Part 1 & 2 Sheathing Compounds.
UL 83	Thermoplastic-Insulated Wires and Cables.
BS 7655-3	Part 3 PVC Insulation Compounds hard grade type
BS 7655-4	Part 4 PVC Sheathing Compounds general application
IEC 60227	Part 1 PVC Insulated Cables
BS EN 60811	Standard test methods

PVC INSULATIONS COMPOUND FOR CABLES GRADES

ITEM	TYPE		DESCRIPTION	TEST METHODS					
				DENSITY	TENSILE STRENGTH	ELONGATION	HARDNESS.	LOSS OF MASS	THERMAL STABILITY@200
				ASTM 792 IEC 60811-1 gr/cc	ASTM D 638 IEC 60811 N/mm ²	ASTM D 638 IEC 60811 %	ASTM D 2240 Shore A	IEC 60811 mg/mm ²	IEC 60811-405 MINUTES
BCC/101	TI-1	BS EN 50363-3	General Purpose PVC insulation Compound 70°C	1.40	12.5	125	85	2	.....
BCC/102	TI-2		Flexible PVC insulation Compound 70°C	1.40	10	150	80	2	.....
BCC/103	TI-3		Heat Resistance PVC insulation Compound 90°C	1.40	15	150	88	1.5	MIN.240 (MIIN)
BCC/104	PVC/A	IEC 60502	PVC Insulation Compound 70°C	1.40	12.5	150	88	.....	.....
BCC/105	PVC/B		PVC Insulation Compound 80°C	1.40	12.5	125	88	.....	MIN.100 (MIIN)
BCC/106	PVC/C	IEC 60227-1	PVC Insulation for fixed installation	1.40	12.5	125	.....	2	.....
BCC/107	PVC/D		PVC Insulation for flexible installation	1.40	10	150	.....	2	.....
BCC/108	PVC/E		Heat Resistance PVC insulation for internal wiring	1.40	15	150	.....	2	MIN.180 (MIIN)
BCC/109	TYPE-2	BS 7655	Hard grade PVC Insulation 70°C	1.40	18.5	125	88	2	.....
BCC/110- -UL	TYPE 105 Insulation	UL 83	PVC Insulation 105°C	1.40	10	100	88	.....	.....



PVC SHEATHING COMPOUND FOR CABLES GRADES

ITEM	TYPE	DESCRIPTION	TEST METHODS						
			DENSITY	TENSILE STRENGTH	ELONGATION	HARDNESS.	LOSS OF MASS	THERMAL STABILITY@200	
			ASTM 792 IEC 60811-1 gr/cc	ASTM D 638 IEC 60811 N/mm ²	ASTM D 638 IEC 60811 %	ASTM D 2240 Shore A	IEC 60811 mg/mm ²	IEC 60811-405 MINUTES	
BCC/201	TM-1	BS EN 50363-4	General Purpose PVC Sheathing 70°C	1.50	12.5	125	85	2	.....
BCC/202	TM-2		General Purpose PVC Sheathing 70°C Flexible	1.50	10	150	80	2	.....
BCC/203	TM-3		Heat Resistance PVC insulation Compound 90°C	1.50	10	150	88	1.5	MIN.240 (MIIN)
BCC/204	ST-1	IEC 60502	PVC Outer Sheathing Compound 80°C	1.50	12.5	150	88	.....	.....
BCC/205	ST-2		PVC Outer Sheathing Compound 90°C	1.50	12.5	150	88	.....	.....
BCC/206	TYPE 5	B EN 7655-4	PVC Sheathing Compound – Hard 85°C	1.50	12.5	125	88	1.5	.....
BCC/207	TYPE 6		PVC Bedding Compound 70°C	1.60	6	125	80	2	.....
BCC/208	TYPE 9		PVC Sheathing Compound 90°C	1.50	12.5	125	88	1.5	.....
BCC/209	PVC/ST4	IEC 60227-1	PVC Sheathing for fixed installations	.....	12.5	125	.....	2	.....
BCC/210	PVC/ST5		PVC Sheathing for flexible cables	.....	10	150	.....	2	.....
BCC/211	PVC/ST9		PVC Sheathing oil resistance flexible cables	.....	10	150	.....	2	.....
BCC/212	PVC/ST10		PVC Outer Sheathing Compound 90°C	.....	10	150	.....	2	MIN.180 (MIIN)

Specific gravity & shore hardness values on tables is nominal values only for a guidance Tensile strength, Elongation and loss of mass are Minimum standard requirement

- Our Product available in Black ,Red ,White ,Natural Colors
Other Colors are available as agreement between supplier and Manufactures
- Other grads are also available with special requirements for armoured and non-armoured cables like Categories A or C (Flame retardant), anti-termite, Oil resistance and Ultra-Violet stabilized ...etc



POLYPROPYLENE FILLER

Polypropylene yarn (string) manufactured from fibrillated film of the polypropylene group meeting the requirements specified in accordance with BS 4881.

APPLICATIONS

Used as filler in cables applications

The products are available in white color, other grades and colors are available.

Physical properties of the polypropylene filler (strings)

ITEM	DENIER	MIN. BREAKING LOAD(N)	RUNNAGE WEIGHT
BCC/501	132,150	1226	280±5%
BCC/502	52,942	2010	170±5%
BCC/503	69,230	2648	130±5%

- Recommended Number of twist per meter (TPM) from 4-6 TPM
- Denier = Weight of 9-meter-long string sample in (g) x 1000
- Runnage Weight = (9000 x 1000) / Denier

RIGID UPVC COMPOUND

U-PVC Compound used for the extrusion of window profiles, shutters, drain pipes, electric conduits and pipes and other profiles for the building or furniture industry. and other technical items.

General Propertise

ITEM	DESCRIPTION	TEST METHODS				
		DENSITY	TENSILE STRENGHT	HARDNESS.	HDT	IZOD IMPACT
		ASTM 792 GR/CC	ASTM D 638 Kg/cm ²	ASTM D 2240 Shore D	ASTM D -648 °C	ASTM D-256 J/M
General	UPVC Compound for Conduit	1.40-1.55	421.1	Min.80	Min-75	Min -27

Specific gravity & shore hardness values on tables is nominal values only for a guidance

These materials are available in White, black and grey, other colors and grades properties are also available upon requirement.



PVC COMPOUND FOR GENERAL PURPOSE

Compounds based on PVC for extrusion of hoses, gaskets and other flexible profiles used in many applications.

ITEM	DESCRIPTION	TEST METHODS			
		DENSITY	TENSILE STRENGTH	ELONGATION	HARDNESS.
		ASTM D 792, IEC 60811-1 gr/cc	ASTM D 638, IEC 60811 N/mm ²	ASTM D 638, IEC 60811 %	ASTM D 2240 Shore A
BCC/301	PVC Compound for Plugs	1.29	Min 12.5	Min.150	80
BCC/302	PVC Compound for Gasket	1.25	Min 12.5	Min.150	72
BCC/303	PVC Compound for Water Proof	1.40	Min 12.5	Min.150	80

Specific gravity & shore hardness values on tables is nominal values only for a guidance Tensile strength and Elongation are Minimum values

PVC GRANULES



HOSES



GASKETS & PROFILES



FOOTWEAR



The Materials is available in natural, transparent or in any color requested by the customer.

PACKAGING

PVC Compound is available in the form of free flowing pellets or dry blend and supplied in jumbo bags of moisture resistant material with a net content of $1,250 \pm 5$ kgs.

Poly propylene yarn is available in the form of strings bobbin and supplied in a pallet shrinked by a moisture resistant material with a net content of 730 ± 30 kgs..



STORAGE AND SHELF LIFE

The product /compound should remain in Sealed condition without exposing to direct sunlight and temperature not exceeding 30 - 40°C. and should keep containers dry and tightly to avoid moisture and contamination Shelf life of the compound is 12 months from the date of manufacture. Product alteration may occur due to extended period of storage.

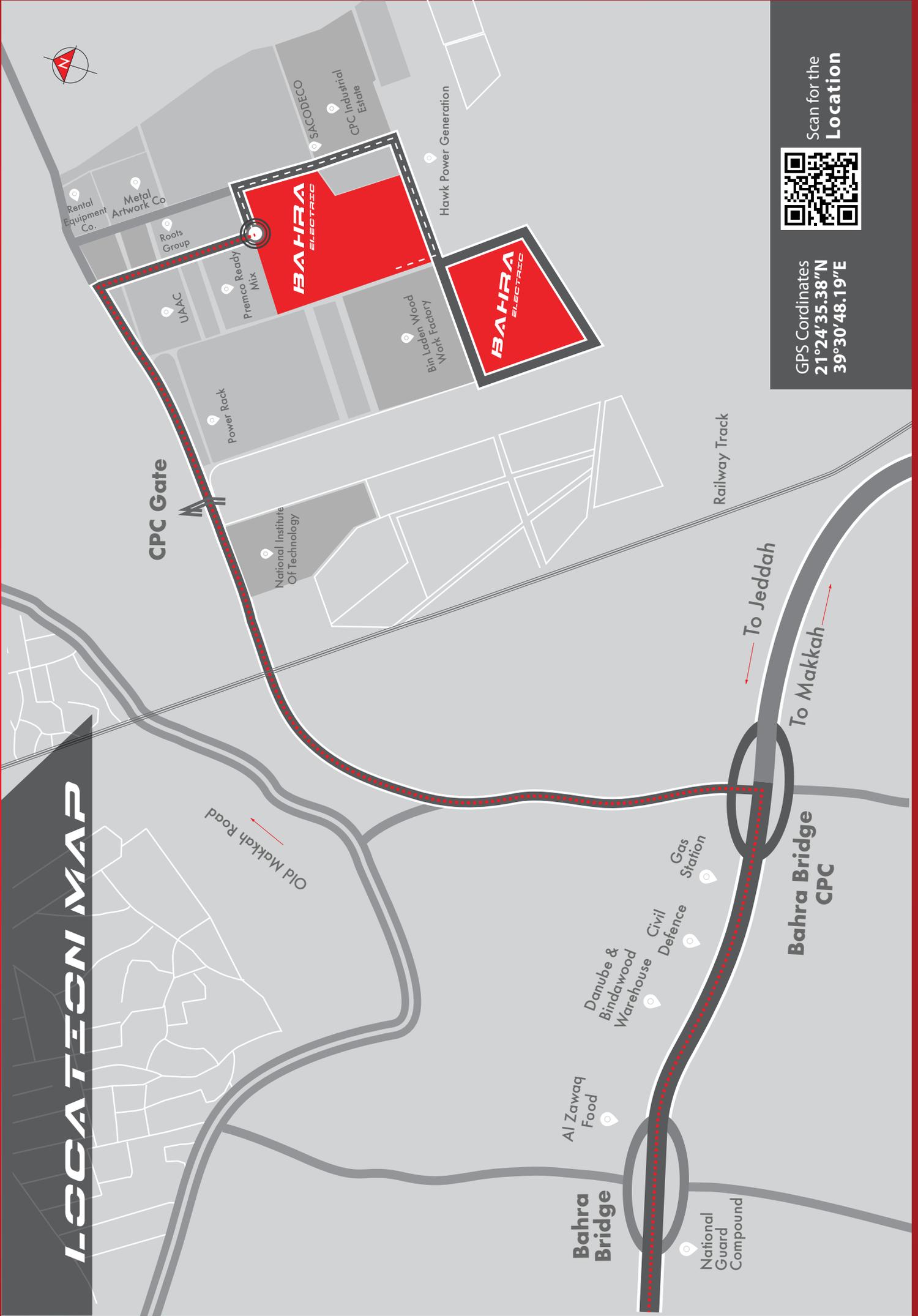
DISCLAIMER

The content is given in accordance with and to the best of our knowledge and experience. They must, however, be considered as references without guarantee that is to say, no liability can be inferred to any existing law Bahra Cables Co. Ltd. accepts no liability of any kind in case the above mentioned storage conditions are not fulfilled The values shown in these tables are typical values obtained from measurements made on extruded samples or pressed plates.

The information shown in this document should be considered given simply as a guide for the use of the interested product.

The technical information shown derive from our laboratory tests and are indicative and not strictly binding. Bahra Cables Co. Ltd. will never be considered responsible for the results obtained by using its products in other production processes.

LOCATION MAP



Scan for the Location

GPS Coordinates
21°24'35.38"N
39°30'48.19"E

Bahra Advanced Cable Manufacture Co. Ltd.

ص.ب. ٥٩٨٩ جدة ٢١٤٣٢. المملكة العربية السعودية، هاتف ١١١٥ ١٢ ٩٦٦، فاكس ٥٦٨٣ ١٢ ٥٩٦٦
P O Box 5989, Jeddah 21432, Saudi Arabia, Tel +966 12 591 1115, Fax +966 12 591 5683
sales@bahra-cables.com

شركة بحرة المتطورة لصناعة الكابلات المحدودة ش.م.م

Customer Service: +966 92 001 1127 / 800 124 8111

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