

ASAS CABLE (PVT) LTD ISLAMABAD



MSc (Chemistry) 1974 University of Bradford UK
PhD (Chemistry) 1976 University of Bradford UK
Postdoctoral Research

Research/Experience	Period	Field	Funded By
RISO National Labs, Denmark	March 1991 to March 1992	Cable and Wire	European Union
KACST, RIYADH S.ARBIA	May 1997 to July 1999	Cable and Wire	KACST
Advisor, PIEAS Islamabad	October 2005 to September 2008	Cable and Wire	PIEAS
Associate Professor, NUST	September 2008 to September 2012	Cable and Wire	NUST
EME NUST	July 2012 to July 2013	Cable and Wire	EME, NUST
Deputy Chairman Polymer Working Group International Irradiation Association UK	2013 to 2014	Promotion of Irradiation Technology	International Irradiation Association UK

Experience:

- 1.) Was awarded by IAEA US Dollar 12,00000\$ for pursuing project aim at developing novel formulation of cables (1990 - 2005)
- 2.) Was awarded rupees 7.8 Million by Ministry of Science & Technology to setup a pilot plant for development of cables (2000 - 2003)
- 3.) Was awarded rupees 186 Million by Ministry of Science & Technology (Year 2005) to set up institute for research on advanced polymers and high speciality cables.

In all, almost institutes in 38 countries were visited several times each for Technology Transfer mostly high specialty cable and wire including the scientific visits, participation in conferences and CRPs in which several countries researchers presented their work. Countries visited several time each were USA, UK, Russia, Canada, Japan, China, Australia, New Zealand, Italy, Germany, France, Denmark, Austria, South Korea, Vietnam, Thailand, Hong Kong, Indonesia, Malaysia, Abu Dhabi, Dubai, Qatar, Oman, Morocco, Sudan, Uganda, Kenya, Nigeria, Egypt, Sri Lanka, Bangladesh, Brazil, Iran, Saudi Arabia.

Technology Transfer by CEO ASAS Cables to Malaysia, IRAN and Switzerland

As IAEA expert and as private assignments, transferred the technology of highly specialized cables to the above along with international quality control

Consultant Hired by MOSTI (Malaysia) Funded by Brain Gain Project (Two Months, Year 2010)

Radiation cross linked flame retardant PE, PVC/PU cables and wires technology was transferred to Wonder cables, Malaysia via research and development carried out at MINT, BANGI MALAYSIA.

Transfer of radiation cross linked cables to Yazd Cables, YAZD (Five Expert missions, Year 2001 - Year 2005)

As IAEA expert as endeavor of peaceful applications of radiation, transferred technology of radiation cross linked cables to Yazd Cables via Yazd Radiation Processing Centre located in YAZD, Iran

Consultancy for CERN, (GENEVA) in quality control of radiation resistant cables installed at CERN, GENEVA

As Consultant (year 2019 to date) transferred the technology of quality control of radiation resistant cables for evaluation of the extent of damage to the installed cables at CERN, the highly prestigious laboratory at GENEVA, Switzerland.

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ASAS CABLE (PVT) LTD ISLAMABAD



TECHNOLOGY TRANSFER OFFER:

Cable Manufacturing Companies in Developing World Let us Innovate, Value add to Achieve Self Reliance and Boost Sales.

About Us:

The company came into being in year 1998 in response to the local demand of master batches for making PVC / PE cross linked cables flame retardant, termite resistant rodent resistant by the major electrical cable producing companies in Pakistan. Value addition being quite profitable and the costs of master batches being quite low, the cable companies accepted our products readily and speedily leading to their reliance on locally made master batches. Since year the 1998, several thousand tones of the master batches have been supplied to these companies.

The company in the year 2018 started producing flame resistant radiation resistant flexible medium voltage cables to supply to Pakistan Atomic Energy Commission to meet their demand for nuclear power plant cables. We were able to fulfill their demand and not only products supplied were superior to the imported cables but also CERN, the prestigious lab in Switzerland hired the CEO, DR SHAMSHAD AHMED for imparting to a group at CERN the complete quality control of the class 1E cables to equip them with the necessary knowledge of the quality control to help avoid the purchase of the non qualifying cables.

Then followed the request in year 2021 from the Commission for the supply of coaxial cables especially non migrant to meet their urgent local demand of the signal cables. Various coaxial cables namely RG 213, RG 58 RG 59 etc in several hundred km quantity have been supplied since.

Product of ASAS Cables:

Cables

NPP Cables, Power & Instrumentation Cables

All cables are FLAME RESISTANT RADIATION RESISTANT AND POSESS ZERO HALOGEN AND LOW SMOKE CHARACTER. Shelf life 60 years Characteristics of rodent resistance, termite resistance, can be imparted on demand. A) Single Core, Single Strand (conductor annealed copper) ranging from c/s 1mm² to 34mm²

- Flexible multi-core cables ranging from single core to 50 core. Fire resistant, chemical resistant, zero halogen & low fume, low smoke and PVC (Jacket)

Fire resistance Radiation resistance up to 100Mrad can be imparted to any type of cable and wire including optical fiber and coaxial cables

COAXIAL CABLES

- Coaxial Cable RG213 C/U
- Coaxial Cable RG 58C/U, RG 59 B/U and URM PVC 76
- Multi shielded 50 ohms cable and 75 ohms

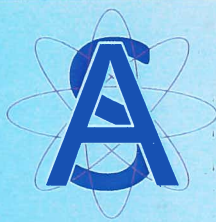
WIRES & Master batch Materials for following Cables/wires

- Flame Retardant Low smoke PVC Wire
- Rodent resistant PVC wire
- Anti-termite PVC wire UV resistant PVC wire

Master Batches of rodent resistant, flame retardant, anti-termite materials have been supplied to Cable Firms since year 1998 where necessary quality control know how has been imparted.

HIGH SPECIALTY CABLES





Master Batches for value addition produced indigenous by ASAS CABLES and supplied to major Electrical Cable Manufacturers in Pakistan since year 1998.

Anti Rodent Master Batches

Rodents are animals that gnaw the cable insulation or jacket and major species are squirrels rats, mu-rids and nutria. This renders the conductor bare and results in short circuiting and consequently fire. This leads to colossal loss of life and property. Anti rodents modify the PVC and other engineering resins in such a way that the rodents can not bite the cable continuously and thus cannot bare the conductor averting the short circuiting as a result. Cost wise the ingredients are easily available in most markets of the world and as the quantity added is small the addition of the cost to the resin formulation is low. On the other hand the value addition is pronounced resulting in elevation of the sale price. The additives after incorporation in formulation are hazard free. We have supplied the master batches to major cable producers in Pakistan. There has not been a single complaint regarding the efficacy of the rodent resistant cable.



The efficiency of the master batches has been factually tested by exposing the modified and control cables to mice from kitchens and it was found out that the modified cable was not harmed in any serious manner whereas the control cable had been rendered bare by the rodents.

Master Batches for Production of Flame Retardant and Low Smoke Cable based on PVC, PP PE or PU resin



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ANTI TERMITE MASTERBATCHES

Termites also consume the outer jacket of cables and like rodents render cables bare leading to short circuiting and fire. Master batches can be produced using readily available ingredients and are hazard free. Value addition in price of the modified cable is considerable whereas due to the low level of addition of ingredients the addition to the cost of the resin is very low. For resins not containing a halogen such as PE, PU PP based cables Formulation is different and can be supplied readily. Quantities used are higher than in case of PVC.

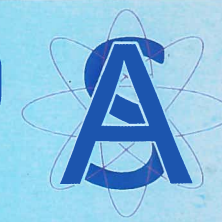
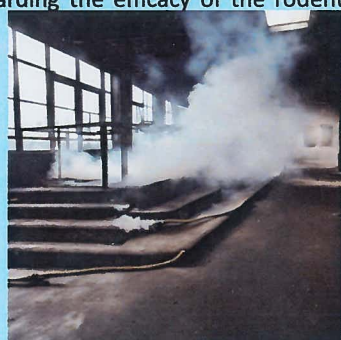
SOLAR CABLES MASTERBATCHES

For developing Solar Cables which stand exposure to sun for several years mater batches can be added to any formulation of cable resulting in UV resistant cables. Exposure to UV light for accelerated ageing test has revealed that surface of post irradiated cable demonstrated no degradation.

CABLES

HIGH SPECIALTY CABLES INDIGENOUS PRODUCTION HIGH TEMPERATURE PVC Cable

PVC softens on attaining 70 C and can in heated areas such as proximity of engine in automotive and aeronautics lead to short circuiting and fire. By replacement of certain ingredients high temperature PVC can be produced. Value addition can allow increase in price of the cable whereas the modification costs a lot less.



RADIATION RESISTANT LOW VOLTAGE FLEXIBLE MULTI CORE POWER CABLES FOR NUCLEAR POWER PLANTS AND HIGH RADIATION AREAS

In nuclear power plants and establishments having high radiation areas, cables installed must possess a high radiation tolerance, exhibit flame resistant character and in particular class 1E cables require a list of exhaustive tests for validation and qualification. These cables must be based on halogen free low smoke resin. These wires were indigenous produced by us and since year 2018 have been supplied to various institutes of Pakistan Atomic Energy Commission.



In view of the superior quality of our products as compared to international manufacturers, as tested by CERN (laboratory in Geneva), they engaged the CEO of the ASAS cable Dr SHAMSHAD AHMED as consultant for monitoring the quality of installed cables and to set guidelines to purchase essentially qualifying cables.

PRODUCTION OF HIGHLY SPECIALISED NON MIGRATORY COAXIAL CABLES NAMELY, RG 213C/U, RG 58 C/U, RG 59 B/U, URMPVC 76

As we are specialized in production of highly selective cables we have been producing now the non migratory PVC based coaxial cables entitled above and meeting the entire demand of the buyer, PAEC. Supply of cables ensued in year 2021 and is currently underway. Of interest is production of non migratory PVC jacket which hinders the disintegration of the cable jacket. The technology can be transferred with the complete quality control of the wires including multi farious tests of electrical, attenuation tests and the mechanical parameters in conformity with the international standards.

TECHNOLOGY TRANSFER PROCESS

MASTERBATCHES

In case a cable company shows interest in technology transfer the expert will travel to the country where cable company is located. The expert will factually demonstrate the production of the master batches by buying the materials from the local market. The quality control tests will be performed where possible utilizing local facilities to demonstrate the authenticity of the cable produced in conformity with the international standards. The role of different alternate products or additives selected will be explained with the theory or philosophy behind it.

CABLES

In case of production of radiation cross linked cables, the technology of production can be transferred and if radiation source is locally available, Availability of the Electron processing system is essential and the machine should have a wire handling system. Radiation cross linked cables can be tested for their non melting character locally and by performing hot set tests etc.

For high temperature PVC, PVC resin can be appropriately modified by replacement of plasticize and stabilizers. The efficiency can be tested using storage or exposure of produced wires at 105 C in the factory and the treated cables should not demonstrate losses more than allowed as shown in international standards.

For radiation resistant fire resistant low voltage power cables, the fire resistance and mechanical properties will be determined in the factory. If irradiation facility is available, exposure can be given(100Mrads) and the tests performed to establish the radiation tolerance after exposure to 100 Mega rads. Or else the cable will be brought to Pakistan, and after exposure to radiation the tests will be performed to determine the loss in mechanical and electrical characteristics to decide whether the cable qualifies for class 1E cable tests or not.

Costs involved in Technology Transfer

As regards the costs of technology transfer, the matter can be discussed in the first visit. A reasonable moderate cost will be charged for the tech transfer. In the first visit the travel costs will be borne by the expert whereas lodging and boarding will be the responsibility of the cable company inviting the expert. Or else a total package can be decided beforehand. Terms will be flexible and will favor the company buying the technology.

Expertise of Dr. Shamsha Ahmed in the field of development of high specialty wires and quality control Education