





### **Advanced Cable Compounding Solutions**

Swiss Innovation meets Indian Manufacturing Excellence.

MCA Technologies GmbH, Switzerland is a globally operating company, supporting R&D and business development in the speciality chemicals and life sciences industries.

Cables, wires, HFFR compounds, PA6, PA66 GF, PP, PE, PMMA



## **Meet the Visionary**

Dr. Bansi L. Kaul





### Academic Excellence

Institute of Chemical Technology, Mumbai Swiss Federal Institute of Technology, California Institute of Technology



#### **Industry Impact**

60+ US Patents, 100+ publications, 30 years directing commercialisation of 20+ Chemically New Molecular Entities



### **Global Leadership**

Former Director of R&D at Sandoz, Switzerland (now Clariant), renowned for technical presentations worldwide

# **Strategic Partnership**







### **Swiss Innovation**

MCA Technologies GmbH brings cutting-edge R&D and patented flame-retardant technology from Switzerland



### **Indian Manufacturing**

Advanced production facility at Anar Chemicals, Vatva (Ahmedabad) ensures quality and scalability



Multi-National Research & Development across Italy, France, Germany, Belgium, Japan & more



### **Sustainability Focus**

ECOVADIS Silver rating demonstrates our commitment to environmental excellence and responsible manufacturing

# **Applications**

Cables, wires



PA6, PA66 GF



PP, PE, PP copolymers





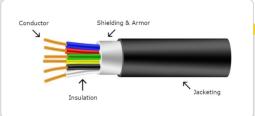
Extrusion applications













# **Multi-Functional Performance Benefits**





## A Game-Changer for Cable Compounding



**Thermal Stabilisation** 



**Universal Fire & Flame Retardant Synergist** 



**Processing** Aid



**Environmental** Safety



No Migration, **No Blooming** 



**Premium Antioxidant++** 



**Volume Efficiency** 



**Perfect Synergist** 

**PPMT** 

Thermal Stability + Antioxidant+ + Fire Safety + Volume Boost + Sustainability

## **Environmental & Scientific Relevance**



Hydrophilic/acid-sensitive retardants (phosphates, oxides, carbonates) accelerate plastic degradation in landfills, waterways, nature (~79% waste stream).



PPMT offers a safer, more durable alternative with sustainability at its core.



Legislative support, voluntary compliance, and public demand will drive adoption.



Recycling and waste-disposal considerations must start at **design stage** of polymers.

## PPMT Triazine Technology: A Sustainable Breakthrough



## n Dual Advantage

Provides fire-safety-in-use + weight reduction while ensuring safe melt processing of plastics.



#### **End-of-Life Benefit**

Enables eco-friendly disposal and efficient energy recovery from waste plastics.



#### **Guidelines for the Future**

Insights from energy extraction can reduce emissions and improve fuel efficiency (gasoline diesel-like efficacy).



#### Safeguards Society

Prevents open burning of plastic waste, reducing pollution, flashover, and forest fire risks.

# Cable Compounding **Applications**





## **Performance Advantages in Cable Manufacturing**

Enhanced flame retardancy in polyolefin cable compounds with superior LOI values

Synergistic compatibility with all Polymer systems

Improved electrical insulation performance

Reduced filler loading requirements compared to traditional FR systems, thus improving flexibility & mechanical properties



Compatible with PE, EVA, PA6, 66, GF, PP, PE, PMMA

### **Working Mechanism of PPMT**



Residues of fire retardancy tests (Limiting Oxygen Index; LOI) of various polypropylene composites



polypropylene (LOI, 17.2); Fig.2b (PP14): polypropylene+ calcium carbonate + **PPMTHF** 



(PP8)) polypropylene +calcium carbonate + kaolin + MDH + PPMT- HF (LOI, 29.7)



2d (PP20IS); polypropylene+ Ammonium Polyphosphate + PPM- HF (LOI, 30)

# Contact & Touchpoints Let's Bridge the gap



### **Corporate Office**

Chitrakoot, Opp. C. N. Vidyalaya, B/h Shakuntal Complex, Ambawadi, Ahmedabad, Gujarat, India - 380006



### **South Mumbai Office**

381-A, Narottam Wadi, Kalbadevi Road, Mumbai - 400002, India



### **Manufacturing & R&D Facility**

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### **USA Strategic Outreach**

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