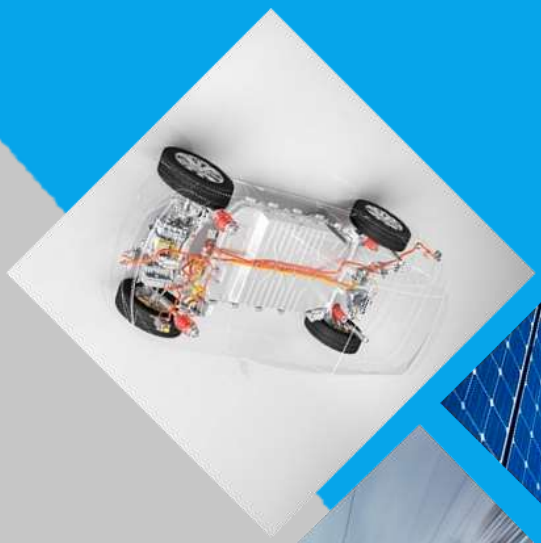
ISG COMPOUNDS



Product Catalogue

EBXL - Photovoltaic Cable Compounds				
Grade	Key Features/Description	Operating Temperature	Application	Specification Comply
ISG-RD-PV-125 IN	Halogen Free Flame Retardant EBXL Insulation Compound for Photovoltaic Cables	-40^{0}C to 125^{0}C	PV Cables	EN-50618, TUV- 2fg/1169
ISG-RD-PV-125 SH	Halogen Free Flame Retardant EBXL Sheath Compound for Photovoltaic Cables	-40^{0}C to 125^{0}C	PV Cables	EN-50618, TUV- 2fg/1169
ISG-RD-PV-105 IN	CPE based Flame Retardant EBXL Insulation Compound for Photovoltaic Cables	-40^{0}C to 105^{0}C	PV Cables	UL 4703, UL-1581, UL-44
ISG-RD-PV-105 SH	CPE based Flame Retardant EBXL Sheath Compound for Photovoltaic Cables	-40^{0}C to 105^{0}C	PV Cables	UL 4703, UL-1581, UL-44
ISG-RD-PV-125 XL	EBXLPE Insulation/Sheath Compound for Photovoltaic Cable & automotive Wire.	-40^{0}C to 125^{0}C	PV Cables	UL 4703, UL-1581, UL-44, ISO -6722 - T3

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ISG COMPOUNDS®

AUTOMOTIVE WIRE HARNESS & CABLE COMPOUNDS

EBXL- Automotive Wire Harness				
Grade	**Key Features/Description**	**Operating Temperature**	**Application**	**Specification Comply**
ISG-RD-PV-125 XL	EBXLPE Insulation/Sheath Compound for Photovoltaic Cable & automotive Wire.	-40^{0}C to 125^{0}C	PV Cables	UL 4703, UL-1581, UL-44, ISO -6722 - T3
ISG-RD-HF-32120	Halogen Free Flame Retardant EBXL Polyolefin Insulation Compound Automotive Wiring.	-40^{0}C to 125^{0}C	Automotive wire -T-3 normal wall thickness.	ISO-6722.
ISG-RD-HF-32120 F	Halogen Free Flame retardant EBXL Polyolefin Insulation compound for fast extrusion & Thin Wall application.	-40^{0}C to 125^{0}C	Automotive wire -T-3 thin Wall Insulation thickness.	ISO-6722
ISG-RD-EP-11125	Flexible Flame retardant EBXL EPDM Insulation compound for battery cable.	-40^{0}C to 125^{0}C	Automotive Battery cable - T-3 ,Thin wall & Heavy wall thickness (PX & PXT)	ISO-6722, SAE J 1127,MS-12581 Rev C

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EBXL - Elastomeric Flexible Cable Compounds				
Grade	Key Features/Description	Operating Temperature	Application	Specification Comply
ISG-RD-EP-1190	EBXL EPDM/EPR Insulation Compound for flexible Cable Insulation	-40^{0}C to 90^{0}C	EPR insulation for power, control & Instrument Cable, Flexible Insulation for Wind power torsion cable	IS-6380 IE-2/IE-3, IEC-60502-1 (EPR), BS-7655 (IE-4 & IE-7 , GP-4 to GP-7)
ISG-RD-IN-2090	EBXL Special Elastomeric Compound for HOFR Insulation.	-40^{0}C to 90^{0}C	Oil Resistance Insulation compound	IS-6380 (IE-4) ,BS-7655-1 (OR-1)
ISG-RD-HF-11120	EBXL Special HFFR Elastomeric Insulation Compound .	-40^{0}C to 105^{0}C	Halogen free Insulation Compound	BS-7655 & EN-50363 (EI-5 & EI-8), UL-62 (EP), UL-1581 (EP),BS-7655 & EN-50363 (EM-1, EM-3,EM-6, EM-8 & EM-10), UL-62 (EP), UL-1581 (EP), UL-44
ISG-RD-SH-2090	EBXL Special Elastomeric Compound for HOFR Sheath .	-40^{0}C to 90^{0}C	Oil resistance Elastomeric Sheathing	IS-6380 (SE-3/SE-4), IEC-60502 -1, BS-7655 -2 (EM-7), H7NF Sheath replacement, IEC-50092-359 (SH, SE-1)
ISG-RD-SH-2090 LS	EBXL Special Elastomeric Compound for HOFR Low Smoke Low Halogen Sheath.	-40^{0}C to 90^{0}C	Oil resistance Elastomeric Sheathing	IS-6380 (SE-3/SE-4), IEC-60502 -1, BS-7655 -2 (EM-7), H7NF Sheath replacement, IEC-50092-359 (SH, SE-1), UL- 62 (CP/CPE), UL-1581 (CP/CPE) etc..

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Thermoplastic ZHLS Cable Compounds				
Grade	**Key Features/Description**	**Operating Temperature**	**Application**	**Specification Comply**
ISG-TP-HF-90	Halogen Free Flame Retardant Thermoplastic Insulation Compound for General Purpose Application.	-40^{0}C to 90^{0}C	Thermoplastic HFFR insulation compound	EN-50363 (TI-6 & TI-7)
ISG-TP-HF-90 F	Halogen Free Flame Retardant Thermoplastic Insulation compound for Thin Wall Fast Extrusion.	-40^{0}C to 90^{0}C	Thermoplastic HFFR insulation compound	EN-50363 (TI-6 & TI-7)
ISG-TP-HF-90 S	Halogen Free Flame Retardant Thermoplastic Compound for Crack Resistance Sheathing	-40^{0}C to 90^{0}C	Thermoplastic HFFR Sheath compound	IEC 332-1 / IEC 332-2 / IEC 332-3,CAT C; VDE 0207 PART 24 HM2 VDE 0250 PART 215 HM5
ISG-TP-HF-90 Q	Halogen Free Flame Retardant Thermoplastic Sheath Compound with Enhanced UV Stabilized	-40^{0}C to 90^{0}C	Thermoplastic HFFR Sheath compound	IEC 332-1 / IEC 332-2 / IEC 332-3,CAT C; VDE 0207 PART 24 HM2 VDE 0250 PART 215 HM5

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Flexible Thermoplastic Elastomeric Compound (TPR/TPE)				
Grade	**Key Features/Description**	**Operating Temperature**	**Application**	**Specification Comply**
ISG-FLEX 90	PVC NBR Based Oil Resistance TPR Compound for Cable Insulation & Sheath.	-40^{0}C to 90^{0}C	Flame Retardant TPR for Flexible Insulation/Sheath of Festoon Cable, Lift/Elevator cable, Appliance Wire.	IS-5831- Type ST-3 (Oil resistance), UL-758
ISG-FLEX-105	SPL PVC Based Oil Resistance TPR Sheathing Compound for Cable .	-40^{0}C to 105^{0}C	Flame Retardant TPR for Flexible Insulation/Sheath of Festoon Cable, Lift/Elevator cable, Appliance Wire.	EN-50290-22-4 TM-53 , TM-55 , UL-758
ISG-TP-HF-105	Halogen Free Flame Retardant Oil Resistance TPE Sheathing Compound for Cable.	-40^{0}C to 105^{0}C	Flame Retardant TPR for Flexible Insulation/Sheath for Festoon Cable, Lift Cable, Appliance Wire, Wind Power Cable.	UL-1581, UL-62 & UL-758

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CV/ Steam Cured Elastomeric Flexible Cable Compounds				
Grade	**Key Features/Description**	**Operating Temperature**	**Application**	**Specification Comply**
ISG-CV-EP-1190	Peroxide Curable EPDM/EPR Insulation compound for flexible Cable Insulation	-40^{0}C to 90^{0}C	EPR insulation for power, control & Instrument Cable, Flexible Insulation for Wind power torsion cable	IS-6380 IE-2/IE-3, IEC-60502-1 , BS-7655 (IE-4 & IE-7 , GP-4 to GP-7)
ISG-CV -HEP-10125	Peroxide Curable HEPR Insulation compound for flexible Cable Insulation	-40^{0}C to 125^{0}C	HEPR insulation Compound, G21 -Photovoltaic High Temp Resistant	IEC-60502-1
ISG-CV-SW-4-3040	EVA Based Peroxide curing Halogen Free Flame Retardant Enhanced Oil resistance Sheathing Compound	-30^{0}C to 120^{0}C	SHF-2 Drilling Fluid Resistance , SW-4 for offshore cable sheathing , LFH compound	LFH compound as per Def Stand-61 Part -31, BS- 7655 - SW-4 , IEC-50092-359 SHF2
ISG-CV-SW--3040	EVA Based Peroxide curing Halogen Free Flame Retardant Oil resistance Sheathing Compound	-30^{0}C to 120^{0}C	SHF-2 , SW-3 for offshore cable sheathing	BS- 7655 - SW-3 , IEC-50092-359 SHF2
ISG-CV-IN-2090	Peroxide curable Special Elastomeric Compound for HOFR Insulation.	-40^{0}C to 90^{0}C	Oil Resistance Insulation compound	IS-6380 (IE-4) ,BS-7655-1 (OR-1)
ISG-CV-HF-32120	Peroxide curable Special HFFR Elastomeric Insulation Compound .	-40^{0}C to 105^{0}C	Halogen free Insulation Compound	BS-7655 & EN-50363 (EI-5 & EI-8), UL-62 (EP), UL-1581 (EP), BS-7655 & EN-50363 (EM-1, EM-3,EM-6, EM-8 & EM-10), UL-62 (EP), UL-1581 (EP), UL-44.
ISG-CV-SH-2090	Peroxide Curable Special Elastomeric Compound for HOFR Sheathing.	-40^{0}C to 90^{0}C	Oil resistance Elastomeric Sheathing	IS-6380 (SE-3/SE-4), IEC-60502 -1, BS-7655 -2 (EM-7), H7NF Sheath replacement, IEC-50092-359 (SH, SE-1)
ISG-CV-SH-2090 LS	Peroxide curable Special Elastomeric Compound for HOFR Low Smoke Sheathing	-40^{0}C to 90^{0}C	Oil resistance Elastomeric Sheathing	IS-6380 (SE-3/SE-4), IEC-60502 -1, BS-7655 -2 (EM-7), H7NF Sheath replacement, IEC-50092-359 (SH, SE-1), UL- 62 (CP/CPE), UL-1581 (CP/CPE) etc.

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PVC INSULATION COMPOUNDS			
Grade	**Key Features/Description**	**Operating Temperature**	**Specification Comply**
ISG-I 70	PVC Compound - Type A.	-15^{0}C to 70^{0}C	IS-5381, IEC-60502-1 TYPE A, BS-6722-3/EN-50363-3 -TI-1
ISG-I 70 FR	PVC Compound - FR Type A.	-15^{0}C to 70^{0}C	IS-5381, IEC-60502-1 TYPE A, BS-6722-3/EN-50363-3 -TI-1
ISG-I 70 SPL	PVC Compound - Type A for thin wall extrusion	-15^{0}C to 70^{0}C	IS-5381, IEC-60502-1 TYPE A, BS-6722-3/EN-50363-3 -TI-1
ISG-I 70 LT	PVC Compound - Type A.Low Temperature	-40^{0}C to 70^{0}C	IS-5381, BS-6722-3/EN-50363-3 -TI-4, TI-5
ISG-I 70 FLX	PVC Compound - Type D.	-15^{0}C to 70^{0}C	IS-5381 TYPE D, BS-6722-3/EN-50363-3 -TI-2.
ISG-I 85	PVC Compound - Type C.	-15^{0}C to 85^{0}C	IS-5381 TYPE C
ISG-I 85 FR	PVC Compound - FR Type C.	-15^{0}C to 85^{0}C	IS-5381 TYPE C
ISG- I 105 HR	PVC Compound- 105 HR (TI-53)	-15^{0}C to 105^{0}C	BS-6722-3/EN-50363-3 -TI-3, BS EN 50290-22-3 TI 53
ISG-I 85 LT	PVC Compound - Type C Low Temperature	-40^{0}C to 85^{0}C	IS-5381 TYPE C

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PVC SHEATHING COMPOUNDS			
Grade	Key Features/Description	Operating Temperature	Specification Comply
ISG-S 70	PVC Compound - ST-1	-15^{0}C to 70^{0}C	IS-5381-ST-1, BS 7655/EN 50363-4-1- TM-1.
ISG-S 90	PVC Compound - ST-2	-15^{0}C to 90^{0}C	IS-5381-ST-2, IEC-60502-1 TYPE ST-1, BS 7655-4-1- TM-1.
ISG-S 90 FRLS	PVC Compound - ST-2 FRLS	-15^{0}C to 90^{0}C	IS-5381- TYPE ST-2, BS 7655/EN 50363--4-1- TM-1.
ISG-S 90 FRLS 50	PVC Compound - ST-2 FRLS (Low Smoke, SDR <50)	-15^{0}C to 90^{0}C	IS-5381- TYPE ST-2, BS 7655/EN 50363--4-1- TM-1.
ISG-S 70 FLX	PVC Compound - ST-3	-15^{0}C to 70^{0}C	IS-5183 -ST-3 , BS 7655/EN50363 - 4.1 - TM-2
ISG- S 105 HR	PVC Compound - TM-53	-15^{0}C to 105^{0}C	BS-EN-50290-4 TI-53, BS 7655/EN50363-4 TM-3
ISG- S 105 FR	PVC Compound - TM-53 FR	-15^{0}C to 105^{0}C	BS-EN-50290-4 TI-53, BS 7655/EN50363-4 TM-3
ISG- S 105 FRLS	PVC Compound - TM-53 FRLS	-15^{0}C to 105^{0}C	BS-EN-50290-4 TI-53, BS 7655/EN50363-4 TM-3
ISG-S 90 LT	PVC Compound - ST-2 LOW TEMPERATURE	-40^{0}C to 90^{0}C	IS-5381- TYPE ST-2, BS 7655/EN 50363--4-1- TM-4
ISG-IS 90 OR	Oil Resistance 90^{0}C PVC Insulation/Sheath Compound.	-15^{0}C to 90^{0}C	BS-EN-50290-4 TM-5
ISG-IS 105 OR	Oil Resistance PVC 105^{0}C Insulation/Sheath Compound.	-15^{0}C to 105^{0}C	EN-50290-22-3 TI-53, EN-50290-22-3 TM-53
ISG-S 105 HR (UV)	PVC 105^{0}CSheath Compound extra sun light Resistance	-15^{0}C to 105^{0}C	EN-50290-22-4 TM-53

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Silicon Master Batches

Grade	Product Description	Features	Application	Recommended Dose
ISG-MB 500	50 % active Ultra high molecular weight PDMS dispersion in LDPE/EVA carrier.	• Micro dispersion of PDMS in LDPE/EVA carrier for ready to use. • Excellent dispersing agent for highly filled compound like HFFR wire & Cable compound, Calcium Carbonate , Talk filled compounds etc. •Reduce the extruder torque and hence enhance the line speed in HFFR compound •FR synergy with Miner filled FR.	•HFFR Wire & Cable compound as flow promoter, surface modifiers & Flame retardant Synergy based on quantity use. • Flow promoter & surface modifiers in unfilled & highly mineral filled polymer compounds.	• For HFFR dispersing Agent & Flow Promoter - 0.7-1.5 % •Surface Modification & FR synergy - 2-4 %.
ISG-MB 600	60 % active Ultra high molecular weight PDMS dispersion in EVA carrier.	• Micro dispersion of PDMS in EVA carrier for ready to use. •Specially designed for footwear to enhance performance of the unit soles. •Enhance abrasion resistance of unit sole without affecting hardness, compression set & Resilience of foam. •Acts as mould release agent & Improve aesthetic & Smoothness.	Unit Shoe sole moulding - Compatible in almost all type of polymer used like EVA/POE/TPE/TPU etc.	1-4 % of total quantity.
ISG-MB 500 PP	50 % active Ultra high molecular weight PDMS dispersion in PP carrier.	• Micro dispersion of PDMS in PP carrier for ready to use. •Specially designed for automotive interior part moulding to enhance surface gloss, scratch resistance & Mar Resistance •Enhance processability i.e. improve mold release & reduce cycle time.	Automotive interior part moulding with PP, PPCP, TPE, TPV , TPO etc..	1-4 % of total quantity.
ISG-MB 500 HD	50 % active Ultra high molecular weight PDMS dispersion in HDPE carrier.	• Micro dispersion of PDMS in PP carrier for ready to use. •Specially designed for automotive interior part moulding to enhance surface gloss, scratch resistance & Mar Resistance •Enhance processability i.e. improve mold release & reduce cycle time.	HDPE PLB Pipe, Duct & Conduit	1-4 % of total quantity.

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Flame Retardant Master Batch			
Grade	**Product Description**	**Features**	**Application**
ISG-FR-100	Highly Loaded Brominated Flame Retardant synergy system for various applications	•Highly filled flame retardant concentrate designed for PE/PP/POE based wire & Cable Compounds, conduits, tubing and film.	• FR PE, FR PP Wire & Cables insulation and sheathing •Conduit, tubing & Film Extrusion.
ISG-FR-200	Highly Loaded antimony trioxide for various applications	•Highly loaded Antimony trioxide Master batch with universal Carrier.	•Flame Retardant system for polymer system for various application.
ISG-FR-400	Highly Loaded halogen free, Phosphorous free FR synergy system for Nylon -6 compounds for wire & Cable , Conduits & tubing .	•For Flame retardant V-0 Nylon- 6.	• Flame Retardant V-0 Nylon -6 Compound for Wire & Cables insulation and sheathing •Conduit, tubing & Film Extrusion.

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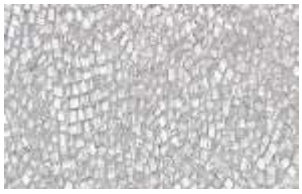

Additive Master Batch				
Grade	Product Description	Features	Application	Recommended Dose
ISG-Anti drip-FS	Anti drip MB based on Fluoropolymer system with PE carrier.	•Formulated to avoid agglomeration and easy dispersion of anti drip material either in compounding stage or as direct use in compound while extrusion. •Highly effective for both halogenated & halogen free mineral filled flame retardant system.	• As anti drip Agent for FR & HFFR Polyolefin compounds.	For HFFR to pass Halogen Free Test as per IEC-754-1 , recommended dose - 2 % Max •For Halogenated System - upto 4 %.
ISG-Flow Aid	Halogen Free dispersing Agent & flow Promoter MB	•Formulated to avoid agglomeration and easy dispersion of mineral fillers at compounding stage of polyolefins. • Highly effective flow promoter. Act as both external and internal lubricants for polymers and hence reduce polymer melt viscosity.	• Dispersing agent and flow promotors in compound.	1.5-2 % of total quantity.
ISG-UV blockers	Combination of UV additive MB.	•Highly effective for thin wall as well as thin wall section. •Suitable for outdoor application of polymers • Pass sunlight resistance test for 720 hrs.	•UV additive and sunlight resistance for compounds for outdoor application. • Excellent colour Stability.	1.5-2 % of total quantity.
ISG-Cure Aid	Special Sensitizers (Crosslinker) MB for EBXL and Peroxide Curing .	• Ideal curing promoters for Electron Beam curing & Peroxide curing of Highly filled polymer compounds where high Elongation & tear resistance is preferred • Provide good compression set & ageing properties.	•Curing sensitizers for Polyolefin based compound with peroxide & Electron beam crosslinking .	1.5-3 % of total quantity.

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Polymers Blend			
Grade	**Product Description**	**Features**	**Application**
ISG-Polyblend -50	Special Polymer Blend for Oil Resistance HFFR Thermoset Compounds.	•Formulated to meet stringent Oil resistance & maintain good Elongation in highly filled ATH & MDH compounds • With proper compound formulation a wide range of operating temperature from -40 to 125 deg C can be achieved •Highly compatible with CPE, EVA, EEA, EMA etc.	•Oil resistance HFFR EBXL & Peroxide Curable Wire & Cable compounds based on EVA/EEA/EMA etc. •Blend with CPE & PVC compound provide an extra oil Resistance and low Temperature Flexibility.
ISG- Polyblend-20	Special Polymer Blend for Oil Resistance ,Low Temperature & Low Smoke System	•Can be used as part replacement of PVC Resin or additive modification of PVC to achieve Stringent Oil Resistance requirement (I & II) as per UL-758. • Good Compatible with PVC •Can be used partial replacement of plasticizers to achieve non migration & low Temperature application in PVC compound. • When added to PVC compound it acts as smoke suppressant and hence reduce smoke. •Good Compatible with CPE rubber to achieve enhanced Oil resistance and wide range of operating temperature (-55 deg C to 125 deg C) with Electron Beam & Peroxide Curing.	•Blend with CPE & PVC compound provide an extra oil Resistance and low Temperature Flexibility.
ISG- NBR/PVC -70	NBR -PVC blends (70/30)	•Lead free NBR & PVC Blend.	•For Various Rubber compound application.
ISG- NBR/PVC -50	NBR -PVC blends (50/50)	•Lead free NBR & PVC Blend.	•For Various Rubber compound application.
ISG- NBR/PVC -40	NBR -PVC blends (40/60)	•Lead free NBR & PVC Blend.	•For Various Rubber compound application.

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