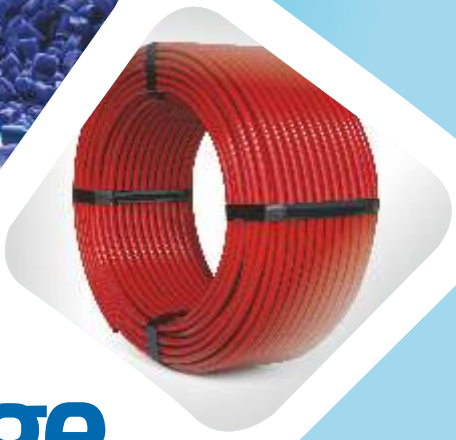
Liberty CHEMICALS

PERFORMANCE ADDITIVES





Polymer Additives Range

For PVC, Polyolefins, Engineering Plastics and Synthetic Rubbers.

COMPANY PROFILE

Constantly marching towards success, the liberty chemicals - an ISO 9001:2015 Certified Company, is a leading manufacturer and exporter of Polymer Additives. These include Lubricants, Functional Additives, Processing Aids, Pigment Wetting Agents, Synthetic Waxes etc.

Ever since its inception, the company has grown leaps and bounds. Manufacturing Polymer Additives since 1987 they have served the plastic industry for more than three decades. With a current production capacity of 6000 M.T. per annum their product portfolio includes over 50 different types of products.

A well-equipped, state-of-the-art facility located at Mumbai, in India, a thoroughbred team of experts and professionals and their dedication towards providing quality service to every customer has made them a preferred choice of many. A team of determined researchers constantly keeps the organisation updated with latest technical innovation. Their customer friendly approach has today earned them a reputation of being the most trustworthy and reliable company.

POLYMER ADDITIVES FROM LIBERTY CHEMICALS

- Lubricants
- Synthetic Waxes
- Processing Aids
- Dispersing Agents
- Pigment Wetting Agents
- Antistatic Agents
- Antiblocking Agents
- Viscosity Depressants

We add Performance

Liberty CHEMICALS
PERFORMANCE ADDITIVES

CONTENT

Additives For

PVC

Product	Chemical Description	Physical Form	Internal Lubricant	External Lubricant	Melting Range (°C)	Use Level (phr.)		Applications / Function
						Rigid PVC	Soft PVC	
Libnol G-11	Oleochemical Derivative	Powder	Y		84-87	0.5-1.5		Compatible Internal Lubricant for rigid PVC pipes/conduits/profiles, hollow articles and moulded products like fittings.
Libnol G-21	Oleochemical Derivative	Flakes	Y	Y	58-60	0.5-1.5	0.5-1.5	Intermediate Lubricant for rigid PVC pipes, conduits and cable compounds.
Libnol G-121	Oleochemical Derivative	Powder	Y		58-60	0.5-1.5		Lubricant of medium-grade compatibility for rigid PVC, for use preferably in rigid PVC profiles, fittings Synergistic support with Sn-mercaptides.
Libnol G-91	Oleochemical Derivative	Liquid	Y			0.5-1.5	0.5-1.0	Internal lubricant for PVC tubings, hoses, films and footwear compounds.
Libnol G-151	Oleochemical Derivative	Powder	Y		54-58	0.5-1.0		Release Agent.
Libnol G-161	Oleochemical Derivative	Liquid	Y			0.5-1.5	0.5-1.0	Compatible Internal Lubricant for rigid and soft PVC, Standard lubricant for rigid PVC films/sheets by Calendering.
Libnol G-200	Oleochemical Derivative	Flakes		Y	54-56	0.2-0.5	0.2-0.5	External lubricant for rigid and soft PVC.
Libnol G-211	Oleochemical Derivative	Flakes		Y	72-74	0.1-0.5	0.1-0.5	External lubricant for rigid and soft PVC especially for Ba-Cd stabilized PVC articles.
Libnol GH-41	Oleochemical Derivative	Powder	Y		70-72	1.0-1.5		Compatible lubricant for rigid PVC bottles; an excellent synergist besides Sn-mercaptides.
Libnol G-1011	Oleochemical Derivative	Liquid	Y			1.0-1.5	0.5-1.0	Internal all round lubricant for rigid and soft PVC films/sheets, synergistic co-stabilizing properties with Sn-mercaptides.
Libnol G-1291	Oleochemical Derivative	Powder	Y		67-71	0.5-2.0		Lubricant of higher compatibility for rigid PVC films, fittings, profiles and other Sn-mercaptide stabilized articles.
Libnol G-3211	Oleochemical Derivative	Powder	Y	Y	52-56	0.5-1.5		All round lubricant for rigid PVC profiles/ extrusion and Injection moulding.
Libnol G-4011	Wax Ester	Liquid	Y	Y		0.5-1.5	0.5-1.5	Compatible lubricant for rigid & soft PVC, for use in rigid sheets, soft PVC films and cables.
Libnol G-5311	Fatty Alcohol	Pastilles	Y		50-54	1.0-2.0		Internal Lubricant for rigid PVC Extrusion and Injection Moulding.
Libnol G-6011	Dicarboxylic Acid Ester	Powder	Y		48-52	0.5-2.0		Universal Internal Lubricant for rigid PVC and foamed PVC applicable independently for stabilizing system. Pseudo-plasticizer for PVC.
Libnol G-7011	Complex Ester	Powder		Y	54-56	0.5-0.8		External lubricant for Calendered film and rigid PVC fittings.
Libnol G-7281	Complex Ester	Powder	Y	Y	52-54	0.5-1.5	0.5-1.0	Internal and External lubricant for extruded profiles and moulded goods, Synergistic co-stabilizing properties with Pb-stabilizers.
Libnol G-7411	Complex Ester	Powder		Y	54-56	0.5-1.0		External lubricant for calendered film with more compatibility, also suggested for Sn-stabilized PVC fittings.
Libnol G-7481	Complex Ester	Powder		Y	60-62	0.5-1.0		External lubricant for extruded profiles and moulded goods.

Liberty CHEMICALS
PERFORMANCE ADDITIVES

PVC

Product	Chemical Description	Physical Form	Internal Lubricant	External Lubricant	Melting Range (°C)	Use Level (phr.)		Applications / Function
						Rigid PVC	Soft PVC	
Libnol KT-25	One Pack Lubricant System	Powder	Y	Y	100-104	1.0-2.0		Single Lubricant for rigid PVC extrusion.
Libnol LC-10	One Pack Lubricant System	Powder	Y	Y	100-104		1.0-2.0	Composite lubricant for PVC cable compounds.
Amisol	Fatty Acid Ester	Powder	Y		84-87	1.0-1.5	1.0-1.5	Internal Lubricant for rigid PVC Extruded/ molded products, film, bottles, pipes fittings etc., For improving flow properties in footwear Compounds, Cables, Gramophone records etc.
Libnol - 40	Fatty Acid Derivative	Liquid	Y				1.0-2.0	Viscosity depressants for PVC leather cloth.
Libstat - 95	High Mono GMS	Beads			67-71	3.0-5.0	0.5-1.0	Antistatic Agent.
Libwax - C	Bisamide Wax	Powder		Y	142-146	0.1-0.5	0.1-1.0	Antiblock agent for soft PVC film and sheets, release agent for rigid PVC calendered sheets.
Libwax - NM	Amide Wax	Powder		Y	100-102		0.1-1.0	Antiblock/Release agent for soft PVC calendered films/sheets specially for printed films with antiblock properties.
Libwax - KD	Polyethylene Wax	Powder		Y	100-104	0.1-0.5		External lubricant for rigid PVC Extrusion.
Libwax - OP	Synthetic Wax	Flakes		Y	84-87	0.2-0.5	0.2-0.5	External lubricant for PVC compound, rigid PVC pipes/fittings/conduits.
Libwax PE-1	Oxidised Polyethylene Wax	Beads		Y	99-102	0.1-0.15		External lubricant for RPVC blown films and extruded products.

CPVC

Product	Chemical Description	Physical Form	Internal Lubricant	External Lubricant	Melting Range (°C)	Use Level (phr.)	Applications / Function
Libwax PE-1	Oxidised Polyethylene Wax	Beads		Y	99-102	0.8-1.0	CPVC pipes and fittings.
Libwax PE-2	Low Density Polyethylene Wax	Powder		Y	100-103	0.8-1.0	CPVC pipes and fittings.
Libwax PE-16	High Density Oxidised Polyethylene Wax	Powder		Y	140-144	0.2-0.3	CPVC pipes and fittings.

POLYETHYLENE

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libwax - OPC	Synthetic Wax	Flakes	84-87	3.0-5.0	Master batches, Filled Compounds / Antifab Compounds.
Libwax - KD	Polyethylene Wax	Powder	100-105	3.0-5.0	Master batches / Compounds.
Libwax PE-1	Oxidised Polyethylene Wax	Beads	100-103	4.0-8.0	Master batches / Compounds, MOC, EXTRUSION.
Libwax - C	Bisamide Wax	Powder	142-146	0.1-0.3	Antiblocking agent for LDPE film.
Libaid T-2	Blend of Metal Soap & Amide	Free Flow Powder	100-105	1.0-2.0	Processing aid for highly filled compound, colour masterbatches, TPO / TPE Compound.
Libaid T-1	Blend of Metal Soap & Amide	Free Flow Powder	105-110	1.0-2.0	Processing aid for highly filled compound, colour masterbatches, TPO / TPE Compound.
Libaid - 47	Hydrocarbon Wax	Powder	54-58	0.5-3.0	High performance dispersing aid in colour masterbatches and carbon black based Masterbatches.
Libnol - 101	Fatty Acid Derivative	Liquid	-	0.5-1.0	Wetting and dispersing agent for titanium dioxide and inorganic pigments.
Libnol - 400	Fatty Acid Derivative	Liquid	-	0.5-2.0	Wetting and dispersing agent for carbon black and organic pigments.
Libnol G-91	Oleochemical Derivative	Liquid	-	0.5-1.0	Wetting and dispersing agent.
Libstat - 95	High Mono GMS	Beads	67-71	0.1-0.5	Antistatic agent for Food grade application.

POLYPROPYLENE

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libaid T-2	Blend of Metal Soap & Amide	Powder	100-105	1.0-1.5	Talc filled PP Compound, Master batches.
Libnol G-3211	Ester Wax	Powder	52-56	0.5-1.0	Lubricant.
Libwax - C	Bisamide Wax	Powder	142-146	0.2-0.5	Lubricant, Antiblocking / Slip Agent.
Libnol - 101	Fatty Acid Derivative	Liquid	-	0.5-1.0	Wetting and Dispersing Agent.
Libdispersant - 1010	Copolymer With Oleochemical Derivatives	Powder	103-108	5.0-8.0	Master batches / Compounds.
Libstat - 95	High Mono GMS	Beads	67-71	0.3-0.2	Antistatic Agent.

Liberty CHEMICALS
PERFORMANCE ADDITIVES

EVA

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
EVA AID - 11	Blend of Metal Soap & Amide	Powder	104-107	1.0-1.5	Processing Aid for EVA Footwear / Sheet.
Libnol G-212	Fatty Acid Ester	Powder	56-60	1.0-1.5	Compatible Internal lubricant for EVA compound.
Libnol G-1291	Oleochemical Derivative	Powder	67-71	0.5-1.0	Flow Improver and Internal Mold release agent.
Libstat - 95	High Mono GMS	Beads	67-71	1.0-1.5	Antistatic Agent.

POLYSTYRENE

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-151	Fatty Acid Ester	Powder	54-58	0.5-1.0	Lubricant.
Libnol G-5311	Fatty Alcohol	Pastilles	50-54	0.2-0.3	Release Agent.
Libstat - CDA	Nitrogen Containing Oleochemical Derivatives	Liquid	-	-	Antistatic Agent.
Libstat - 95	High Mono GMS	Beads	67-71	0.5-1.5	Antistatic Agent.
Libwax - C	Bisamide Wax	Powder	142-146	0.1-0.25	Dispersing Agent.

ABS

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-3211	Ester Wax	Powder	52-56	1.0-1.5	Lubricant.
Libnol G-7481	Complex Ester	Powder	60-62	1.0-1.5	Lubricant.
Libwax - C	Bisamide Wax	Powder	142-146	1.0-2.0	Lubricant.
Libnol G-1291	Oleochemical Derivative	Powder	67-71	0.1-0.5	Internal Mold Release agent.
Libstat - 1518	Nitrogen Containing Oleochemical Derivatives	Solid	44-48	1.0-1.5	Antistatic Agent.

SAN

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-1291	Oleochemical Derivative	Powder	67-71	-	Lubricant.
Libnol G-5311	Fatty Alcohol	Pastilles	50-54	-	Lubricant.
Libwax - C	Bisamide Wax	Powder	142-146	-	Lubricant.
Libnol G-4011	Wax Ester	Liquid	-	1.0-1.5	Flow Improver and Internal Mold release agent.
Libstat - 95	High Mono GMS	Beads	67-71	-	Release Agent.

PU

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-121	Oleochemical Derivatives	Powder	58-60	0.5-1.0	Lubricant.
Libnol G-11	Fatty Acid Ester of Polyol	Powder	83-87	0.5-2.5	Release Agent.
Libnol G-7011	Complex Ester	Powder	52-56	0.6-1.0	Release Agent with good printing properties.
Libnol G-7481	Complex Ester	Powder	60-62	1.0-1.5	Release Agent.
Libwax - C	Bisamide Wax	Powder	142-146	0.1-1.0	Internal mold release agent can influence printing property.

PMMA

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-200	Fatty Acid	Beads	54-56	0.1-0.5	Lubricant.
Libnol G-1291	Oleochemical Derivatives	Powder	67-71	0.1-0.5	Lubricant.
Libnol G-5311	Fatty Alcohol	Pastilles	50-54	0.2-0.3	Lubricant.
Libwax - SS	Stearyl Stearamide	Powder	88-92	0.5-1.0	Release Agent.

POLY CARBONATE

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-3221	Ester Wax	Powder	54-58	0.2-0.5	Lubricant.
Libnol G-7481	Complex Ester	Powder	60-62	0.2-0.5	Release Agent.

POLYAMIDE 6 / POLYAMIDE 66

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-1291	Oleochemical Derivatives	Powder	67-71	0.1-0.5	Lubricant.
Libnol G-3211	Ester Wax	Powder	52-56	0.3-0.5	Lubricant.
Libnol G-7481	Complex Ester	Powder	60-62	0.3-0.5	Lubricant.
Libwax - SS	Stearyl Stearamide	Powder	88-92	0.3-0.5	Release Agent.
Libwax - C	Bisamide Wax	Powder	142-146	0.3-0.5	Release Agent.

PET - PBT

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libnol G-4011	Wax Ester	Liquid	-	0.2-0.5	Lubricant.
Libnol G-7481	Complex Ester	Powder	60-62	0.2-0.5	Release Agent.
Libwax - C	Bisamide Wax	Powder	142-146	0.1-0.5	Release Agent.
Libwax - SS	Stearyl Stearamide	Powder	88-92	0.2-0.5	Release Agent.
Libstat - 95	High Mono GMS	Beads	67-71	0.2-0.5	Antistatic Agent.
Libwax - OPC	Synthetic Wax	Flakes	84-87	1.0-2.0	Dispersing Agent.
Libnol G-18	Oleochemical Derivatives	Liquid	-	0.5-2.0	Wetting and Dispersing Agent.

SYNTHETIC RUBBERS

Product	Chemical Description	Physical Form	Melting Range (°C)	Use Level (%)	Applications / Function
Libwax - C	Bisamide wax	Powder	142-146	0.2-1.0	Lubricant.
Libwax - KD	Polyethylene Wax	Powder	100-105	1.5-2.0	Flow Improver.
Libnol G-200	Fatty Acid	Flakes	54-56	1.0-2.0	Release Agent.
Libnol G-7281	Complex Ester	Powder	52-56	0.2-0.5	Release Agent.

GENERAL INFORMATION FOR FUNCTIONS OF LIBERTY ADDITIVES

Lubricants :
Additives that reduces the friction, heat and wear between two surfaces. These surfaces might be between Polymer molecules and of the equipment or between polymer molecules themselves.

There are two major types of lubricants Internal and External depending upon compatibility. Internal Lubricants are compatible with polymer so that it can reduce melt viscosity of Polymer, improve its flow characteristics and there by reduce frictional heat developed by shear forces which are operating during processing.

External lubricants have low compatibility with polymer at processing temperature to enable it to form a continuous strong thin film between polymer and metal surface.

However some additive have hybrid action. They act as Internal and External Lubricant.

Antistatic Agents:
Help to prevent the build up of static electric charge. Some of the consequences of charge build up includes dust pick-up on finished articles, poor printability and handling problems.

Antiblocking Agents:
Additives added to film resin formulation create a micro-rough surface that reduces the adhesion between the film layers. Consequently blocking force is lowered.

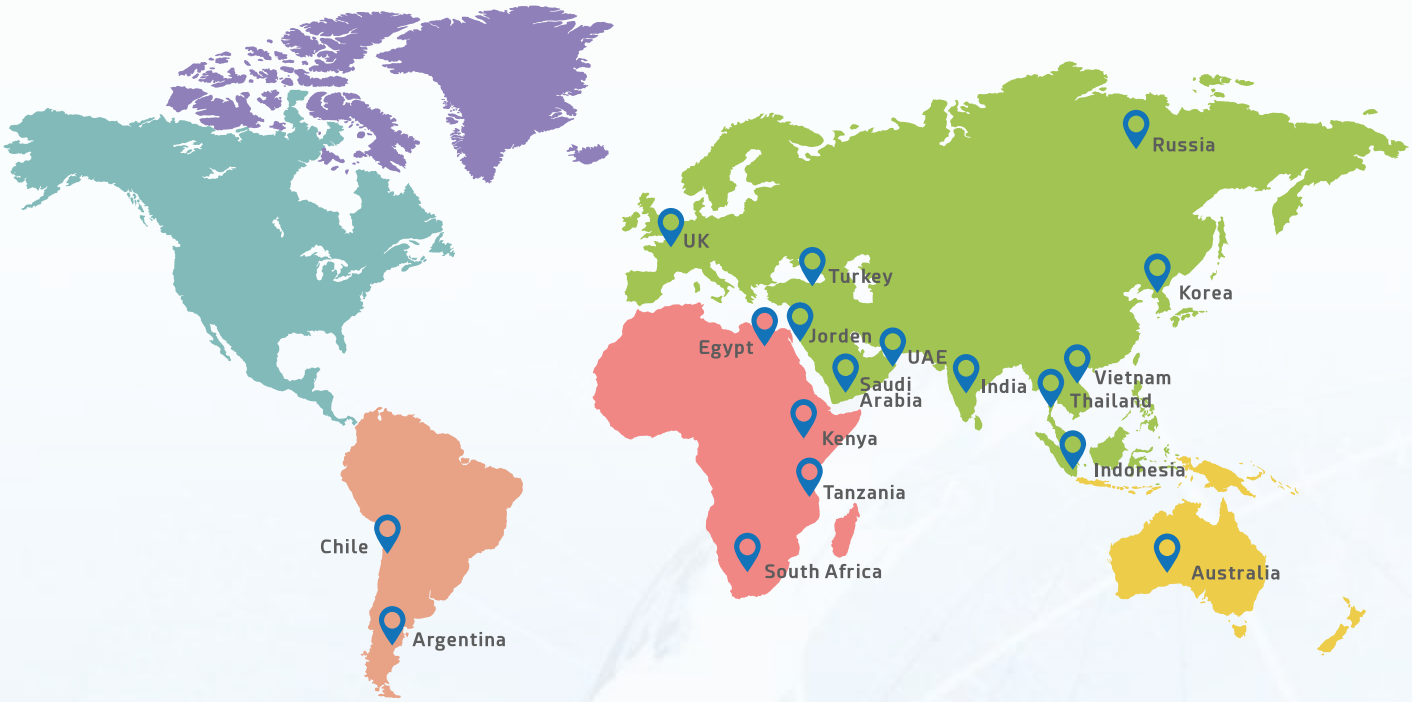
Processing Aid:
Multifunctional additives to enhance flow and to improve dispersion of fillers in processing filled polymer.

Dispersing Agent:
Main function of dispersing agent is to wet the agglomerated pigment as effectively as possible to give excellent color strength.

Mould Release Agent:
Additive reduces friction and adhesion forces between Polymer and Processing equipment for better Mould Release during Moulding.

Liberty CHEMICALS
PERFORMANCE ADDITIVES

OUR PRESENCE ACROSS THE WORLD



Liberty CHEMICALS

PERFORMANCE ADDITIVES

Office
203, Thakker Height, Subhash Nagar,
Village Road, Opp. CEAT Tyres,
Near Nahur Station, Bhandup (W),
Mumbai - 400 078 India

- **Tel:** +91-22-2167 1071 / 72 / 73
- **Fax:** +91-22-2167 1071
- **Email:** info@libertychemical.com

Works
J-8, Krishna Complex,
Val Village, Maharashtra - 421 302 India

www.libertychemical.com

ISO 9001 : 2015
Certified Company