

PLUSS[®]

SPECIALIZED POLYMERS

PLUSS manufactures and markets speciality polymers under the brand names OPTIM[®], BindEX, reCoupp[®], NOVIS, ADNYL[®], OPTIPET[®]. These speciality polymers enhance properties of polymer compounds thus enabling their increased adoption in automotive, wire & cable, wood plastics composites, flexible packaging, white goods, and recycling industries besides several others.

PRODUCT READY RECKONER

Brand	Product	Segment	Application	Dosage Levels (%)*
OPTIM [®]	E-119	Wire & Cables	Reactive coupling agent for HFFR fillers	3 - 4
		ACP	Coupling agent for PE based ACP with high filler content	3 - 5
		Wood Plastics Composites	Compatibilizers, coupling & reinforcement agent for wood fills (HDPE based)	2 - 5
		Nylon Recycling	Compatibilizers for nylon scraps	1 - 10
	E-126	Nylon Compounding	Compatibilizers for polar & nonpolar matrix by improving interfacial adhesion	2 - 6
		Nylon Recycling **	Impact strength enhancer; compatibilizer for fillers; imparts desired toughness	1 - 3
	E-130	Nylon Compounding	Impact modifier for filled polyamides	2 - 4
		Nylon Compounding	Compatibilizers for Polar & Nonpolar matrix by improving interfacial adhesion	1 - 3
		Nylon Compounding	For Low temperature toughness	upto 15%
		Wire & Cables Reactive	Coupling Agent for HFFR Fillers	3 - 4
		Nylon Recycling **	Impact strength enhancer ; Compatibilizer for both glass & mineral fillers ; Imparts super toughness	1 - 8
	E-131	Nylon Compounding	Impact modifier for filled polyamides	2 - 4
		Nylon Compounding	Compatibilizers for polar & nonpolar matrix by improving interfacial adhesion	1 - 3
		Nylon Compounding	For low temperature toughness	upto 15%
		Wire & Cables	Reactive coupling agent for HFFR fillers	3 - 4
		Nylon Recycling **	Impact strength enhancer; compatibilizer for both glass & mineral fillers; Imparts super toughness	1 - 8
	EB-150	Wire & Cables	Reactive Coupling Agent for HFFR Fillers	3 - 4
		ACP	Coupling Agent for PE based ACP with high filler content	3 - 5
		Wood Plastics Composites	Compatibilizers , Coupling & Reinforcement Agent for wood fills (HDPE based)	2 - 5
		Nylon Recycling	Compatibilizers for Nylon Scraps	1 - 10
	E-152	Bio-Polymer /PE Blend	Compatibilizer	10-20% for 20-50% BioPolymer Content

Brand	Product	Segment	Application	Dosage Levels (%)*
	E-156	Wood Plastics Composites	Compatibilizers, coupling & reinforcement agent for wood fills (HDPE based)	2 - 5
	GE-340	PET-PE Recycling	PET-PE reprocessed into sheet	1-5
	GE-344	Polyester Compounding	Impact modifier for filled PBT compounds	2 - 5
		Polyester Recycling	Impact modifier for PC / PBT recycled compounds	2 - 4
	GEB-150	Polyester Compounding	Impact modifier for filled PBT compounds	2 - 5
		Polyester Recycling	Impact modifier for PC / PBT recycled compounds	2 - 4
OPTIM® P-Series	P-401	PP Modification	Addition promotion for coatings in PP moldings	5-10
	P-408	PP Compounding	Reactive coupling agent for filled polypropylene	2 - 4
		PP Alloys	Compatibilizers for PP/PA & PP/EVOH blends	2 - 5
		Wood Plastics Composites	Compatibilizers, coupling & reinforcement agent for wood fills (PP based)	2 - 4
	P-425	PP Compounding	Reactive coupling agent for filled polypropylene	1 - 2
		PP Alloys	Compatibilizers for PP/PA & PP/EVOH blends	2 - 5
		Wood Plastics Composites	Compatibilizers, coupling & reinforcement agent for wood fills with higher filler content	3 - 5
	P-425 (IC)	PP Compounding	Long fibre glass composites	2-5
OPTIM® R-Series	R-642	ABS Compounding	Compatibilizer	5-10
	R-656	Polymer Compounds	Coupling agent for fillers and chemical property enhancer in polymer compounds	2-5
	R-658	PP / PA Compounding	Increasing toughness of PP and nylon compounds for low temperature applications	3 - 5
		Recycling	Increases impact strength of recycled BOPP waste used for injection moulding applications (can be Homo-PP, CO-PP, & Homo+CO -PP mix waste)	10
		Shoe Compounds	Compatibilizer in TPU/TPE blends for economy	3 - 5
		Wood Plastics Composites	Production of HFFR WPC sheets for container flooring	2 - 5
		Compounding	Compounds for over-moulding on ABS for tool handles etc	3 - 5
BindEX E-Series	EB-150	Coating and Lamination for Packaging	Tie Layer Resin (diluted) to improve adhesion for Blown Film Lines	100
	GEB-150	PET Packaging	Processing additive for PET films and other PET based products	5-7
	E-160	ACP	Adhesion between polyethylene core and aluminium sheets in Aluminium composite panels	3 - 5
	E-183	mCPP	Metal adhesion enhancer	5 - 7
	E-186	Lamitube	Tie layer resin for high barrier constructions	40
	E-187	Multi Layer Barrier Films	Tie layer resin (diluted) to improve adhesion for blown film lines	100
	E-188	Multi Layer Barrier Films	Tie layer resin to improve adhesion for cast films	100
	E-189	Multi Layer Barrier Films	Tie layer resin (concentrate) to improve adhesion for blown film lines	15-20
	E-190	Film for Multilayers Tubes	Tie layer resin in conventional film extrusion and co-extrusion equipment for making multilayer tubes	20-30
	E-191	Steel Pipes - HDPE Pipes Interlayer Adhesive	Co-extrudable adhesive for preparation of metal-polymer multilayer structures involving PE and metals such as steel and aluminium	100
	P-187	PP Multi Layer Barrier Films	PP Based tie resin to adhere Nylon 6, Nylon 66 and EVOH with layers of PP or its co-polymers	100
	MB-80	ACP Adhesive Films	Low temperature adhesive film for ACP	20-35 of total film thickness

Brand	Product	Segment	Application	Dosage Levels (%)*
reCoupp® E-Series	E-832	Multi Layer Barrier Films	Dual function tie layer resin	40
NOVIS	P-390	Non Woven Fabric	Improves flow	0.5 - 1
	P-490	Non Woven Fabric & Filter Catridges	Improves flow	3 - 8
	P-492	PP Based Hot Melt Adhesive / Highly Filled PP Compound	Adhesion promoter / coupling agent	5-10 / 2-5
ADNYL®	E-177	Nylon Injection Moulding	In-situ toughening agent for PA-6/PA-66	3 - 5
	E-179	Nylon Injection	In-situ toughening agent for PA-66	3 - 5
OPTIPEI®	213P	Polyester Modification	Chain extender for PET	2-5
	214P	Polyamide Modification	Chain extender for polyamides	2-5
	213M	Polyester Modification	Masterbatch for property enhancement in polyesters	2-5
	214M	Polyamide Modification	Masterbatch for property enhancement in polyamides	2-5

* Dosage levels mentioned are recommendations and users should undertake sufficient verification and testing to determine the suitability for their own purpose.

** To reduce cost 5% blend of Polyethylene is recommended.



Members



National Centre of Cold Chain Development
NCCD is an autonomous body established by the Government of India with an agenda to positively impact and promote the development of the cold-chain sector in the country.



India Energy Storage Alliance,
IESA was launched in 2012 to help technology and system integration companies involved in energy storage and microgrids to understand and capture the opportunities in the growing markets.



Clean Energy Access Network,
is an all India representative organization launched in 2014 with a clear mandate to support, unify and grow the decentralized clean energy sector in India.



Reichs-Ausschuss für Lieferbedingungen (RAL),
Several active PCM enterprises formed the Quality Association PCM in 2004 to develop proper quality assurance procedures.

SUSTAINABLE DEVELOPMENT GOALS

ACHIEVED USING
THIS TECHNOLOGY

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



Industry, innovation
and infrastructure

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Responsible
consumption
and production

Recognition for PLUS[®]



**GITA- Global Innovation
& Technology Alliance - 2022**



**FICCI- DST Lockheed Martin
Award - 2015**



**WWF- Climate
& Energy – 2021**



**TCL- Supply Chain Innovation
Award for Pharmaceuticals - 2018**



**DST, GI- Department of Science
& Technology, Government
of India - 2020 & 2017**



**BIRAC-
Sparsh Grant - 2022**



**UNIDO- FLCTD Innovation
Challenge - 2018 & 2022**



**MIT- Innovators under 35
India Award - 2016 & 2017**



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TECHNOLOGY FOR
A BETTER WORLD

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