



Healthcare Linecard



We take healthcare **personally.**

Healthcare companies need medical-grade plastic resin that meets a wide range of specifications and regulatory requirements. **That's why M. Holland has developed deep expertise in helping our clients select and purchase these materials.**

We offer a full line of medical grade resins, each with full regulatory documentation. Our industry experts can support your team at every step, from early-stage product development to regulatory filings and FDA approval.

Whether we're helping develop your program, providing professional service or offering policy guidance, our goal is the same as yours: supporting the creation of safe and effective medical products.



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# We offer:

## **Globally sourced resin**

We distribute a full range of medical grade resins used in the manufacture of medical devices—from complex orthopedics and surgical tools to packaging, from reusables to disposables, from medical electronics to in vitro diagnostics.

## **Formulation control**

Through rigorous measures, we ensure that no substitutions or raw material changes are permitted unless authorized—giving you the highest levels of consistency and reliability.

## **Risk management**

We meet ISO 9001 quality standards that meet the healthcare industry's stringent requirements. We also reduce supply chain risk by using globally committed suppliers and driving selection toward standard stock core resins.

## **Change management**

To minimize change and disruption, we secure "last buy" opportunities when possible and regularly provide guidance on alternative solutions and materials. We also provide dual sourcing resin selections to diversify the supply chain risk where possible.



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# Our Healthcare Suppliers



## BASF

Ultramid® Advanced N PPA  
Ultramid® Nylon 6 & 66  
Ultramid® Balance Nylon 610  
Nypel® Recycled Nylon 6  
Ultradur® PBT Polyester  
Ultrason® Polyarylsulfones  
  PSU | PPSU | PESU  
Peta® PET Polyester  
Ultraform® POM Acetal  
  Copolymer

## CHEVRON PHILLIPS

MARFLEX® LDPE  
  HDPE | LDPE | LLDPE  
MARFLEX® Metallocene LLDPE  
MARLEX® HDPE  
MARLEX® HMW

## COVESTRO

Apec® high-heat PC  
Bayblend® PC/ABS  
Makroblend® PC/Polyester  
Makrolon® PC  
Texin® TPU  
Desmopan® TPU

## ELASTRON

SEBS  
SBS  
TPV

## FLINT HILLS RESOURCES

Polypropylene  
Homopolymer  
Random Copolymer  
Impact Copolymer

## INEOS STYROLUTION

Terluran® ABS  
Lustran® ABS  
Novodur® ABS  
Novodur® High Heat ABS  
Terblend® N ABS + PA  
Triax® ABS+ PA  
Terlux® MABS  
Clearblend® MBS  
Zylar® MBS  
Luran® S ASA  
Luran® SAN  
Lustran® SAN  
Lustran® SMA  
NAS® SMMA  
K-Resin®  
K-Resin® SBC

Styroflex® SBC  
Styrolux® SBC  
Styrolution® PS  
GPPS | HIPS

## TOTAL

Polypropylene  
  Homopolymer  
  Random Copolymer  
  Impact Copolymer

## PLASKOLITE

Optix® PMMA  
Acrylic Resins



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<b>Resins</b>	<b>Resin Manufacturer</b>	<b>Grades</b>	<b>Description</b>	<b>Sterilization</b>	<b>Regulatory, Drug Master File, USP Class V, ISO 10993 - FDA</b>	<b>Color</b>
<b>ABS</b>	INEOS Styrolution	Lustran® 248 FC	Global, higher flow. Chemical resistance data available.	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Opaque
<b>ABS</b>	INEOS Styrolution	Lustran® 348	Global, std flow	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural, Black, and White
<b>ABS Si2</b>	INEOS Styrolution	Lustran® 349	Si lubricated	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Opaque
<b>Acrylic</b>	Plaskolite	CA-927 GHF	Injection molding grade, medium impact strength, high flow	Gamma ray sterilizable	FDA	Clear
<b>Acrylic</b>	Plaskolite	Optix CA-1000IG	Injection molding grade, excellent fracture toughness	Gamma ray sterilizable	FDA	Transparent
<b>Acrylic</b>	Plaskolite	Optix CA-41 UVT	Ultra violet light transmitting		FDA	Transparent
<b>Acrylic</b>	Plaskolite	Optix CA-927G	Injection molding grade, medium impact strength	Gamma ray sterilizable	FDA	Transparent
<b>Acrylic</b>	Plaskolite	Optix CP-71F	High heat resistance, injection and extrusion process grade		FDA	Transparent
<b>Acrylic</b>	Plaskolite	Optix CP-82F	High heat resistance, injection molding grade		FDA	Clear
<b>Acrylic</b>	Plaskolite	Optix CP-924G	Transparent, good impact, insulating, weather resistant	Radiation sterilizable	FDA	Clear
<b>HDPE</b>	Chevron	Marlex® 9006	0.953 HDPE injection molding grade		DMF, USP VI, FDA	Natural
<b>HDPE</b>	Chevron	Marlex® 9012	Ethylene-hexene copolymer injection molding, goof flow, impact strength and stiffness		DMF, USP VI, FDA	Natural
<b>HDPE</b>	Chevron	Marlex® 9018	0.952 HDPE injection molding grade		DMF, USP VI, FDA	Natural



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MABS	INEOS Styrolution	Terlux® HD 2802	2 MFI, medical	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Clear
MBS	INEOS Styrolution	Zylar® 960	PC drop in, lower cost, no Bis A. Chemical resistance data available.	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Clear
PBT	BASF	Ultradur® B4520 PRO	25 MVR, rigidity, strength, low moisture, injection molding. Chemical resistance data available.	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Opaque
PC	Covestro	Apec® 1745	High heat, more autoclave cycles	Gamma/E-Beam, EtO	ISO	Natural/Clear
PC	Covestro	Makrolon® 2458	Easy-flow, good hydrolysis resistance	Gamma/E-Beam, EtO, limited steam	ISO	Natural/Clear
PC	Covestro	Makrolon® 2558	Global, higher flow	Gamma/E-Beam, EtO		Natural/Clear
PC	Covestro	Makrolon® RX 2530	Gamma stabilized	Gamma/E-Beam, EtO, limited steam	ISO	Natural/Clear
PC/ABS	Covestro	Bayblend® M750	Std flow	Gamma/E-Beam, EtO, limited steam	ISO	Natural/Opaque
PC/ABS	Covestro	Bayblend® M850 XF	High flow. Chemical resistance data available.	Gamma/E-Beam, EtO, limited steam	ISO	Natural/Opaque
PC/ABS FR	Covestro	Bayblend® FR 3010	15 MVR standard grade, global availability. V = 0.	Gamma/E-Beam, EtO, limited steam		Natural/Opaque
PC/ABS FR	Covestro	Bayblend® M301 FR	Non Hal FR, std flow. Chemical resistance data available.	Gamma/E-Beam, EtO, limited steam	Limited ISO parts 5 & 10	Natural/Opaque
PC/PBT	Covestro	Makroblend® M 525	Non FR, improved chemical resistance	Gamma/E-Beam, EtO, limited steam	Limited ISO parts 5 & 10	Natural/Opaque
PC/PBT FR	Covestro	Makroblend® M 4000 FR	FR, improved chemical resistance, shrinkage. Chemical resistance data available.	Gamma/E-Beam, EtO, limited steam		Natural/Opaque



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PC/PET	Covestro	Makroblend® UT 1018	FR, improved chemical resistance	Gamma/E-Beam, EtO, limited steam		Natural/Opaque
PC/PET FR	Covestro	Makroblend® EL 700	FR, impact modified, injection molding, good impact strength, chemical resistance	Gamma/E-Beam, EtO, limited steam		Natural/Opaque
POM	BASF	Ultraform® W2320 003 PRO	25 MVR, lubricious, chemical resistance, good stiffness, injection molding	EtO	DMF, USP VI, ISO, FDA	Opaque/White
POM	BASF	Ultraform® H4320 PRO	2.5 MVR, lubricious, chemical resistance, good stiffness, extrusion grade	EtO	DMF, USP VI, ISO, FDA	Opaque/White
POM	BASF	Ultraform® N2320 033 PRO	7.5 MVR, lubricious, chemical resistance, good stiffness, injection molding	EtO	DMF, USP VI, ISO, FDA	Opaque/White
POM	BASF	Ultraform® S2320 003 PRO	11 MVR, flow, lubricious, chemical resistance, good stiffness, injection molding	EtO	DMF, USP VI, ISO, FDA	Opaque/White
POM	BASF	Ultraform® W2320 003 PRO TR	25 MVR, additional lubricant, chemical resistance, good stiffness, injection molding	EtO	DMF, USP VI, ISO, FDA	Opaque/White
PP	Flint Hills Resources	11R12A	Specialty polymer, caps & closures	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	11R12A	Specialty polymer, closures, medical device, gamma stabilized	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	13R9A	Random copolymer-vials, micro-tubes, centrifuge tubes, caps, bottles	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Good clarity
PP	Flint Hills Resources	13R9A	Random copolymer, medical device, labware, radiation stabilized	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural



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PP	Flint Hills Resources	13T25A	Random copolymer, pharma packaging, medical devices, autoclave, clarified	Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Clarified
PP	Flint Hills Resources	23M2A	Random copolymer, pharma packaging, BFS, bottles	Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	23N10A	Random copolymer, pharma packaging, SBM, bottles, autoclavable	Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	23R2A	Random copolymer-bottles, beakers, flask, carboys	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Good clarity
PP	Flint Hills Resources	23R2A	Random copolymer, vials and bottles, radiation stabilized	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	23S1Acs256	Random copolymer, food, health, medical, medical labware		FDA, USP Class VI and DMF	Natural
PP	Flint Hills Resources	23S2A	Random copolymer, hot fill, health, medical	EtO and autoclave sterilizable	FDA, USP Class VI and DMF	Natural
PP	Flint Hills Resources	H0500HN	Homopolymer, closures, medical devices	Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	P4C5N-046	Homopolymer, nucleated, medical device, closures, ophthalmic	Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	P5L2Z-038	Random copolymer, hot fill, food, health, medical	EtO and autoclave sterilizable	DMF, FDA, USP Class VI and ISO 10993	Natural
PP	Flint Hills Resources	P5M5R-083	Random copolymer, medical device, labware, radiation stabilized	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Natural
PP	Flint Hills Resources	P5M6K-080	Random copolymer, medical device, labware, radiation stabilized	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Clarified



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PP	Flint Hills Resources	P9M7R-056	Specialty polymer, pipette tips, vials, micro tubes, PCR plates, lids, racks, low warpage	Gamma, Autoclave, EtO	DMF, USP Class VI, ISO, USP 85	Excellent clarity
PP	Total	3230	1.6 MFI homopolymer, blow molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	3281	1.3 MFI homopolymer, sheet, blow molding, fiber	EtO	FDA, USP VI	Natural
PP	Total	3622	12 MFI homopolymer, film, sheet blow molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	6232	2 MFI copolymer, blow molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	7238	2 MFI copolymer, blow molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	7425	4 MFI copolymer, injection molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	8573	7 MFI copolymer, film	EtO	FDA, USP VI, DMF	Natural
PP	Total	3620WZ	12 MFI homopolymer, film, sheet blow molding	Gamma/E-Beam, EtO	FDA, USP VI, DMF	Natural
PP	Total	3727W	20 MFI homopolymer, nucleated, injection molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	3740WR	20 MFI homopolymer, nucleated, radiation stabilized, injection molding	Gamma/E-Beam, EtO	FDA	Natural
PP	Total	3847 MR	45 MFI homopolymer, hydrophobic, radiation stabilized, clarified	Gamma/E-Beam, EtO	FDA, USP VI, DMF	Clarified
PP	Total	3944 MR	60 MFI homopolymer, hydrophobic, radiation stabilized, clarified	Gamma/E-Beam, EtO	FDA, USP VI, DMF	Transparent, Opaque/ White



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PP	Total	7622MZ	11 MFI copolymer, clarified, anti-static, injection molding, ISBM	EtO	FDA, USP VI, DMF	Clarified
PP	Total	Lumicene® 1251	2 MFL metallocene PP, film, injection molding, blow molding	EtO	FDA, USP VI, DMF	Natural
PP	Total	Lumicene® M3382MZ	3.5 MFI metallocene PP, clarified, anti-static thermoforming, blow molding	EtO	FDA	Clarified
PP	Total	Lumicene® M3661	14 MFI metallocene PP, injection molding, film, fiber	EtO	FDA	Natural
PP	Total	Lumicene® M6823MZ	30 MFI metallocene PP, clarified, anti-static, injection molding, ISBM	EtO	FDA, USP VI, DMF	Clarified
PP	Total	Z9450	5 MFI copolymer, film	EtO	FDA, USP VI, DMF	Natural
PPSU	BASF	Ultrason® E 2010	Medium viscosity, injection molding, blown film and extrusion, high heat. Chemical resistance data available.	Gamma/E-Beam, EtO, limited steam	FDA	Natural/Clear
PPSU	BASF	Ultrason® E 3010	High viscosity, tough, injection molding, extrusion. Chemical resistance data available.	Autoclave, gamma/E-Beam, EtO	FDA	Natural/Clear
PSU	BASF	Ultrason® S 2010	High heat, good flow. Chemical resistance data available.	Gamma/E-Beam, EtO, limited steam	FDA	Natural/Clear
SAN	INEOS Styrolution	Lustran® SAN 31	Blue tine, drying. Chemical resistance to saline, bleach, glutaraldehyde, lipids, betadine	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Clear
SBC	INEOS Styrolution	Styrolux® 684D	Shore D 64, excellent film, good bonding	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Clear
SEBS	Elastron	Elastron® G Series	Shore A 30-90	Gamma/E-Beam, EtO, limited steam	UPOS VI, some ISO, USP 88	Natural, Black, Transparent



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<b>SMMA</b>	INEOS Styrolution	NAS® 21	Clear, most rigid. Chemical resistance data available	Gamma/E-Beam, EtO	DMF, USP VI, ISO, FDA	Natural/Clear
<b>S-TPE</b>	INEOS Styrolution	Styroflex® 2G66	Rubber-like qualities, high tear, bonding	Sterilizable	DMF, USP VI, ISO, FDA	Natural/Clear
<b>TPU</b>	Covestro	Texin® RxS285	Ester TPU, Shore A 85, injection, extrusion and blow processes	EtO, Gamma, E-beam	ISO 10993-1	Natural and Black (salt and pepper)
<b>TPU</b>	Covestro	Texin® Rxt85A	Polyether TPU, Shore A 85 injection and extrusion grade	EtO, Gamma, E-beam	ISO 10993-1	Natural only
<b>TPV</b>	Elastron	Elastron® V Series	Shore A 30-90	Gamma/E-Beam, EtO, limited steam	USP VI, some ISO, USP 87	Natural, Black, and Transparent



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A black and white photograph of a man with short, dark hair, smiling broadly. He is wearing a light-colored button-down shirt. His right hand is resting against his chin, with his fingers partially hidden in his pocket. A cigar is held between his fingers. The background is slightly blurred.

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