

### **G112 Food Contact Compliance Declaration**

This is to confirm that **Propelinas G112** Polypropylene Homopolymer Resins manufactured by Polypropylene (M) Sdn Bhd :

1. meets FDA requirements 21 CFR 177.1520 under paragraph (a) (1)(i) and under paragraph (c)(1.1);
2. uses all type of additives at dosage levels that meet FDA requirements; and
3. is suitable for food packaging as listed in Table 1 21 CFR 176.170 (c) and under conditions of use A through H in Table 2 21 CFR 176.170 (c)

The above information is - to the best of our knowledge - true and accurate. However since the actual conditions of use and the specific uses of our products are beyond our control, the user necessarily assumes all the risks of their uses. As such all users must make their own determination that the uses of our product are safe, lawful and technically suitable in its intended application.

For further inquiries, please contact our product manager at +603-2331 4416.

#### **Disclaimer:**

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# PROPELINAS G112

UNIPOL TECHNOLOGY

## Polypropylene Homopolymer Resin

### APPLICATIONS

Injection Moulding  
Closures  
Furnitures  
Housewares

### FEATURES

Fast processing cycle  
Easy Processing

Properties	Test Method	Values <sup>(1)</sup>	Unit
<b>Resin Properties</b>			
Melt Flow Rate (230°C/2.16kg)	ASTM D 1238	11	g/10 min
Nominal Density	ASTM D 792	0.9	g/cm <sup>3</sup>
<b>Mechanical Properties</b>			
Tensile Strength at Yield	ASTM D 638	41	MPa
Tensile Elongation at Yield	ASTM D 638	6.61	%
Flexural Modulus (1% Secant)	ASTM D 790	1827	MPa
Notched Izod Impact (23°C)	ASTM D 256	24	J/m
Gardner Impact Strength (23°C)	ASTM D 5420	2.7	J
Rockwell Hardness	ASTM D 785	60	M Scale
<b>Thermal Properties</b>			
Melting Point	ASTM D 3418	165	°C
Crystallisation Point	ASTM D 3418	130	°C
Heat Deflection Temperature			
A (1.80MPa)	ASTM D 648	64	°C
B (0.45MPa)		111	°C

(1) Typical values, not to be construed as specifications. User should confirm results by their own tests.

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## Safety and Handling Considerations

### Safety Considerations

Material Safety Data Sheets for PROPELINAS resins are available from MITCO sales representative to help customers further satisfy their own safe handling and disposal needs. Such information should be requested from the supplier(s) of any product(s) prior to working with it (them).

The comments that follow are pertinent only to the resins discussed, as supplied. Various additives and processing aids used in fabrication will have their own safe use profile and must be investigated separately.

### Health and Safety

Polypropylene resins are among the most inert commercial polymers and constitute no hazard in normal handling. For "Regulated" uses, such as food contact, your MITCO sales representative can obtain compliance letters for specific resins.

Normal good housekeeping practice should be followed. Workers should be protected from possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal precaution to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapours; workers should be assured of supply of fresh air. Workplace environments should be kept clean and free of dust.

### Combustibility

Polypropylene resins will burn when supplied with adequate amounts of heat and oxygen.

They should be handled and stored away from contact with direct flames and/or other ignition sources. In burning, polypropylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water fog preferred. In enclosed areas, fire fighters should be provided with self-contained breathing apparatus.

### Recycling

Polypropylene resins can be recycled. Production rejects and/or conversion waste should preferably be recycled instead of being disposed of.

### Disposal

In disposal of any wastes, be certain all applicable national and local regulations are met. If these regulations are met, the following is applicable for the polypropylene resins as supplied. If fillers, processing aids or other materials have been added, their possible influence on handling and disposal should be judged separately. Polypropylene resins can be disposed of either by incineration or landfill. With properly controlled industrial, commercial or municipal incineration, particulate or gaseous discharge into the air can be maintained within allowable levels. Thermoplastic products, such as polypropylene resins, have high heat values and should be incinerated only in units designed to handle high heats of combustion. In landfill, polypropylene resins are inert, do not degrade quickly, form a strong and

permanent soil base, and evolve virtually no gases or leachates known to pollute water resources.

### Product Stewardship

PPMSB has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the health and environmental information on our products and take appropriate steps to protect employee and public health, and our environment. Our Product Stewardship programme rests with each and every individual involved with PPMSB products – from the initial concept and research, to manufacture, use, sale and disposal of each product.

### Customer Notice

PPMSB strongly encourages its customers to review both their manufacturing processes and their applications of PPMSB products from the standpoint of human health and environmental quality to help ensure that PPMSB products are not used in ways for which they are not intended or tested. MITCO personnel will assist customers in dealing with ecological and product safety considerations. PPMSB product literature, including Safety Data Sheets, should be consulted prior to use of PPMSB products. These are available from the nearest MITCO sales office. For further information contact MITCO Sales office: please call +603 2051 4416 or fax +603 2051 3074.

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# PROPELINAS G112 Product Stewardship

## Polypropylene Homopolymer Resin

### FOOD CONTACT USE

This product complies with US FDA 21 CFR 177.1520 for use in food contact articles.  
This product complies with EU Plastics Directive 2002/72/EC and 2007/19/EC.

### MEDICAL APPLICATION

Any intended end application covering medical or pharmaceutical use must be evaluated for safety, lawfulness and technical suitability compliance to relevant standards or regional pharmacopeia and is the sole responsibility of the manufacturer.

### RESTRICTED OR CONTROLLED SUBSTANCES

The following substances are not used as part of the manufacturing process or product formulation and have been historically tested to be present in amount below the regulated threshold. Since no systematic test is performed to verify the absence of these substances, therefore no guarantee is given that trace amount as impurity or otherwise are not present.

<b>Substances</b>	
Heavy metals	Cadmium and cadmium compounds
	Lead and lead compounds
	Mercury and mercury compounds
	Hexavalent chromium compounds
Chlorinated organic compounds	Polychlorinated biphenyls (PCB)
	Polychlorinated naphthalenes (PCN)
	Polychlorinated terphenyls (PCT)
	Short-chain chlorinated paraffins (SCCP)
	Other chlorinated organic compounds
Brominated organic compounds	Polybrominated biphenyls (PBB)
	Polybrominated diphenylethers (PBDE)
	decabromodiphenylether (DecaBDE)
	TBBA Tetrabromobisphenol A
	Other brominated organic compounds
Organotin compounds	Tributyltin compounds (TBT)
	Triphenyltin compounds (TPT)
	Monobutyltin Cation (MBT)

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	Dibutyltin Cation (DBT)
	Tributyltin oxide (TBTO)
Ozone depleting substances	Chlorofluorocarbon (CFC)
	Hydrofluorocarbon (HFC)
	Hydrochlorofluorocarbons (HCFC)
	Hydrobromofluorocarbons (HBFC)
	Perfluorocarbon (PFC)
	Carbon tetrachloride (CCl <sub>4</sub> )
	1,1,1-Trichloroethane (Methyl chloroform)
	Methyl bromide
	Bromochloromethane
	Halons
Phthalates	Di(2-ethylhexyl) phthalate (DEHP)
	Dibutyl phthalate (DBP)
	Butylbenzyl phthalate (BBP)
	di-iso-nonyl phthalate (DINP)
	Di-iso-decyl phthalate (DIDP)
	Di-n-octyl phthalate (DNOP)
	Di-n-hexyl phthalate (DNHP)
Triaryl Phosphates	Triphenyl phosphate, 115-86-6
	Tri-o-cresyl phosphate, 78-30-8
	Tri-m-cresyl phosphate, 563-04-2
	Tri-p-cresyl phosphate, 78-32-0
Dioxins	2,3,7,8-tetrachlorodibenzo-p-dioxin
	2,3,7,8-pentachlorodibenzo-p-dioxin
	1,2,3,4,7,8-hexachlorodibenzo-p-dioxin
	1,2,3,7,8,9-hexachlorodibenzo-p-dioxin
	1,2,3,6,7,8-hexachlorodibenzo-p-dioxin
	1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin
	1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin
	1,2,3,7,8-pentabromo-dibenzo-p-dioxin
	1,2,3,4,7,8-hexabromo-dibenzo-p-dioxin
	1,2,3,7,8,9-hexabromo-dibenzo-p-dioxin
	1,2,3,6,7,8-hexabromo-dibenzo-p-dioxin.
	Epoxy derivatives
Bis (hydroxyphenyl) methane bis (2,3-epoxypropyl) ethers (BFDGE)	
Novolac glycidyl ethers (NOGE)	
Asbestos	
Specific azo compounds	
Formaldehyde	
Polyvinyl chloride (PVC) and PVC blends	
Beryllium oxide	
Beryllium copper	
Polycyclic aromatic hydrocarbons (PAH)	
Biocides and pesticides	
Triclosan or 5-chloro-2-(2,4-dichlorophenoxy)phenol (3380-34-5)	

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Pentachlorophenol PCP
Natural rubber latex
Bisphenol A (80-05-7)
Silicones
Styrene (100-42-5)
Nitrosamine
Perfluoro octanyl sulphonate (PFOS) and Perfluoro octanyl acid (PFOA)
Externally recycled materials
Carcinogenic, Mutagens and Repro-toxins substances (CMR)
Persistent, Bioaccumulating, and Toxic substances (PBT)
Dangerous substances according to Directive 1999/45/EC and Directive 67/548/EEC

Reference of relevant requirement standards or regulation documents:

IKEA IOS-MAT-0010

IKEA IOS-MAT-0021

IKEA IOS-MAT-0054

FDA 21 CFR 177.1520

EU Directive 2002/72/EC (Annex II, Annex III, Annex V)

EU Directive 1999/45/EC

EU Directive 67/548/EEC

EU Directive 76/769/EEC

EU Directive 2002/16/EC amended by EU Directive 2004/13/EC

EU Directive 2005/84/EC

RoHS Directive 2002/95/EC

Japan Food Sanitation Law

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