

General Purpose Polystyrene (GPPS)

Grade: G-241

Manufacturer: Vercell GmbH

Issue Date: Apr-2025

General information:

Vercell® G-241 is a high molecular weight, heat resistant grade with high mechanical strength. It is suitable for physically or chemically expanded extruded sheet. It is also suitable for use as blend component with high impact polystyrene.

Features:

- High molecular weight
- High heat resistance
- High mechanical strength
- UL 94 HB (Antwerp only)

Application:

- Foam sheet for meat & fruit trays
- BOPS sheet

No.	Test Item	Test Method	Unit	Reference Indicators
1	Melt Flow Index (200°C - 5kg)	ASTM D-1238	g/10min	3.0
2	Tensile strength @ Break	ASTM D-638	MPa	52
3	Bending strength	ASTM D-790	MPa	50- 100
4	Elongation @ Break	ASTM D-638	%	1
5	Haze	ASTM D-1003	%	≤4.5
6	Vicat Softening Temperature (50°C/hr - 1kg)	ASTM D-1525	°C	102
7	Residual Monomer	GB-16867	PPM	MAX 800
8	Cleanliness	GB-12671	particles/100g	≤6

Processing:

Vercell® G-241 can be injection molded at temperatures between 180 and 280°C, and recommended mold temperatures between 10 and 60 °C. Extrusion temperatures should not exceed 250°C.

General Purpose Polystyrene (GPPS)

Grade: G132

Manufacturer: Vercell GmbH

Issue Date: Apr-2025

General information:

Vercell® G132 is general purpose polystyrene with high heat resistance and good flow properties. G132 is free of internal lubricants, e.g., zinc stearate

Features:

- Free of internal lubricants
- Good flow characteristics

Application:

- XPS

No.	Test Item	Test Method	Unit	Reference Indicators
1	Melt Flow Index (200°C - 5kg)	ASTM D-1238	g/10min	6
2	Tensile strength @ Break	ASTM D-638	MPa	48
3	Bending strength	ASTM D-790	MPa	50 - 100
4	Elongation @ Break	ASTM D-638	%	1.5
5	Haze	ASTM D-1003	%	≤4.5
6	Vicat Softening Temperature (50°C/hr - 1kg)	ASTM D-1525	°C	101
7	Residual Monomer	GB-16867	PPM	MAX 800
8	Cleanliness	GB-12671	particles/100g	≤6

Processing:

can be processed by all the methods normally used for polystyrene. It is preferably processed by extrusion to foamed sheets and boards using a direct gas injection method, especially when using halogenated flame retardant additives

General Purpose Polystyrene (GPPS)

Grade: G-324

Manufacturer: Vercell GmbH

Issue Date: Apr-2025

General information:

Vercell® G-324 is a general-purpose polystyrene grade with a good flow characteristic and an improved heat resistance

Features:

- Excellent flow properties
- Good heat resistance
- UL 94 HB (Antwerp only)

Application:

- Blending with HIPS in FFS thermoformed cups
- Injection molded articles
- Petri dishes, cuvettes, pipettes

No.	Test Item	Test Method	Unit	Reference Indicators
1	Melt Flow Index (200°C - 5kg)	ASTM D-1238	g/10min	10
2	Tensile strength @ Break	ASTM D-638	MPa	45
3	Bending strength	ASTM D-790	MPa	50 - 100
4	Elongation @ Break	ASTM D-638	%	2
5	Haze	ASTM D-1003	%	≤4.5
6	Vicat Softening Temperature (50°C/hr - 1kg)	ASTM D-1525	°C	90
7	Residual Monomer	GB-16867	PPM	MAX 800
8	Cleanliness	GB-12671	particles/100g	≤6

Processing:

Vercell® G-324 can be processed by all methods normally used for polystyrene. It is well balanced in its flow characteristic and heat resistance and is used preferably for injection molding. It can be extruded as a blend component with high impact grades and as a gloss layer of thermoformed foils and sheets.

General Purpose Polystyrene (GPPS)

Naming guide

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GPPS Naming procedure and parameters:

Product		Additive		MFI range		Vicat range	
G	GPPS	1	Without any	1	14-20	1	102-106
		2	ZnS	2	9-13	2	98-102
		3	ZnS & MNO	3	4-6	3	94-97
		4	ZnS & MNO & EBS	4	2-4	4	89-94