HYOSUNG

Polypropylene

The Next Circular Economy

RIGID PACKAGING APPLICATIONS



HYOSUNG

VINA CHEMICALS

HYOSUNG Polypropylene
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Hyosung Polypropylene Random Transparent

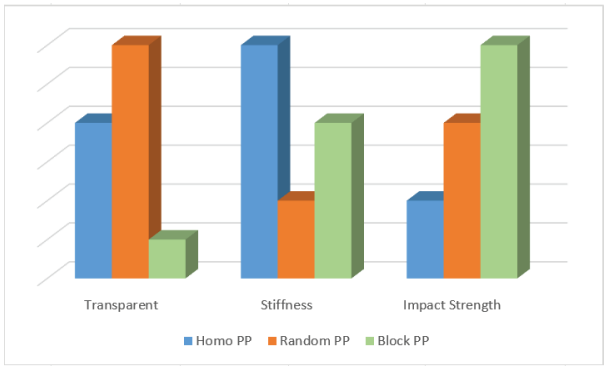
Hyosung Vina Chemicals have Polypropylene Random Transparent for injection molding, which is applicable for transparent food containers, housewares, baby bottles and others. It exhibits high transparency, good stiffness and impact strength balance, high gloss and low TVOC (Total Volatile Organic Compounds).
Hyosung Polypropylene Random Transparent N-Product incorporate technology from Milliken's NX8000 to provide excellent clarity and improved aesthetics when used in specialty household and food packaging. Additionally, it also allows for lower processing temperatures, shorter cycle time, and greater energy efficiency.
Additional, Hyosung Polypropylene Random Transparent TN-Products provide good transparency, giving consumers a variety of options.

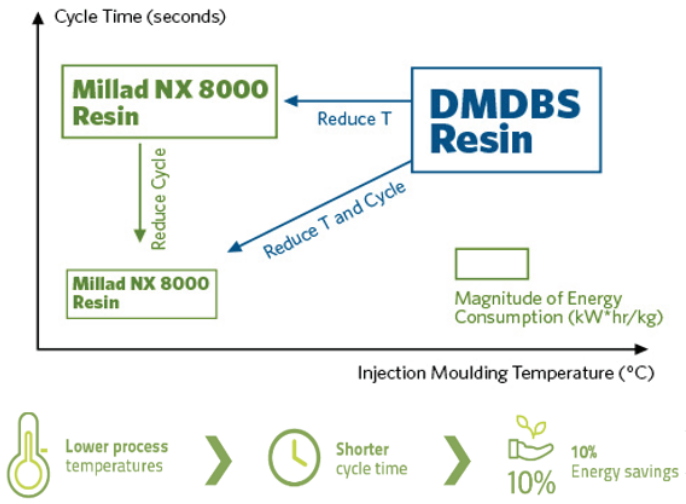
Major Attributes

· Excellent Transparent·
· Good Flowability & Processability
· Phthalate and Bisphenol free
· Superior organoleptic performance
· Stiffness and Impact Strength Balance for durability
· High flow and Clarifying agents together enable superior production.

Benefit of Random Transparent N-Product line is using Millad NX 8000 reduces energy usage by roughly 15% compared to conventional clarifiers by allowing converters to process PP at lower temperatures.







Typical Applications









HYOSUNG Polypropylene
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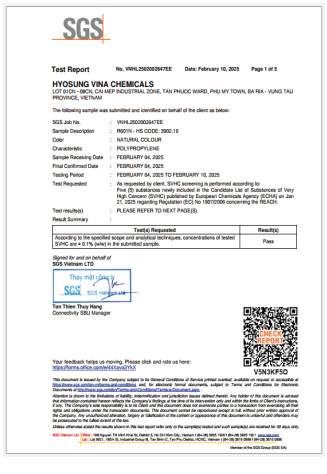
Product Portfolio

Product Properties / Product Name	Density		Melt Index (230℃, 2.16kg)		Flexural Modulus		Tensile Strength		Izod/Charpy Impact (Notched, 23℃)		Key Feature
	ASTM D792 [g/cm³]	ISO 1183 [g/cm³]	ASTM D1238 [g/10min]	ISO 1133 [g/10min]	ASTM D790 [kg/cm³]	ISO 178 [Mpa]	ASTM D638 [kg/cm²]	ISO 527 [Mpa]	ASTM D256 [kg·cm/cm]	ISO 179 [kJ/m2]	
R601N	0.9	0.9	12	12	11,000	1,000	300	30	7.0	6.0	Excellent Transparency
R701N	0.9	0.9	20	20	11,000	1,000	300	30	6.0	5.0	Excellent Transparency
R801N	0.9	0.9	30	30	11,000	1,000	300	29	5.0	4.0	Excellent Transparency
R801TN	0.9	0.9	30	30	11,000	1,050	300	29	5.0	5.0	Good Transparent
R901N	0.9	0.9	45	45	11,000	1,000	300	30	5.0	4.0	Excellent Transparency
R901TN	0.9	0.9	45	45	11,000	1,000	300	30	5.0	5.0	Good Transparent
R1001N	0.9	0.9	65	65	11,000	1,000	300	31	5.0	4.0	Excellent Transparency, Faster Cycle Time
R1101N	0.9	0.9	85	85	11,000	1,000	300	31	4.0	3.0	Excellent Transparency, Faster Cycle Time
R1201N	0.9	0.9	100	100	11,000	1,000	300	31	3.0	2.5	Excellent Transparency, Faster Cycle Time

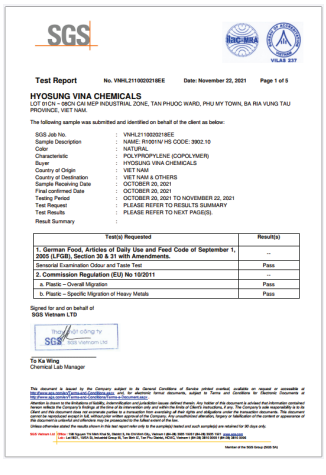
The values listed above are typical values for reference purpose only and shall not be construed as specification

Certificates

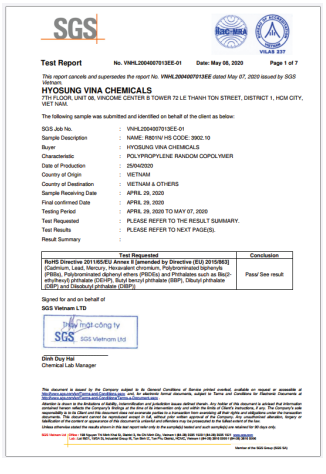
CERTIFICATE	REACH	EU	RoHS	FDA	Phthalates Free	Bisphenol Free
R601N	•	•	•	•	•	•
R701N	•	•	•	•	•	•
R801N	•	•	•	•	•	•
R801TN	•	•	•	•	•	•
R901N	•	•	•	•	•	•
R901TN	•	•	•	•	•	•
R1001N	•	•	•	•	•	•
R1101N	•	•	•	•	•	•
R1201N	•	•	•	•	•	•



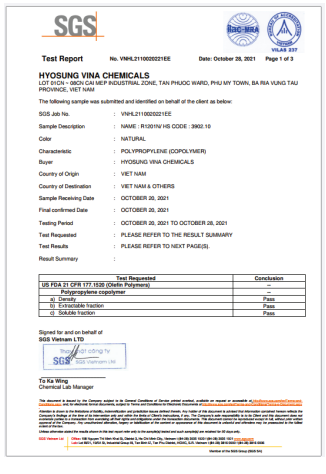
REACH



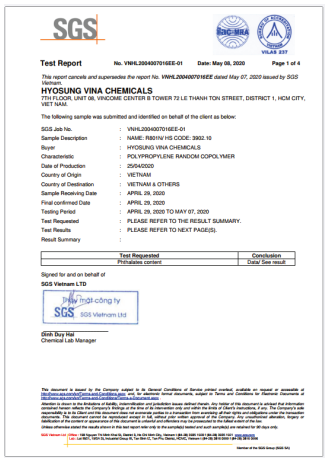
EU 10/2011



RoHS



FDA



Phthalates Free

HYOSUNG Polypropylene
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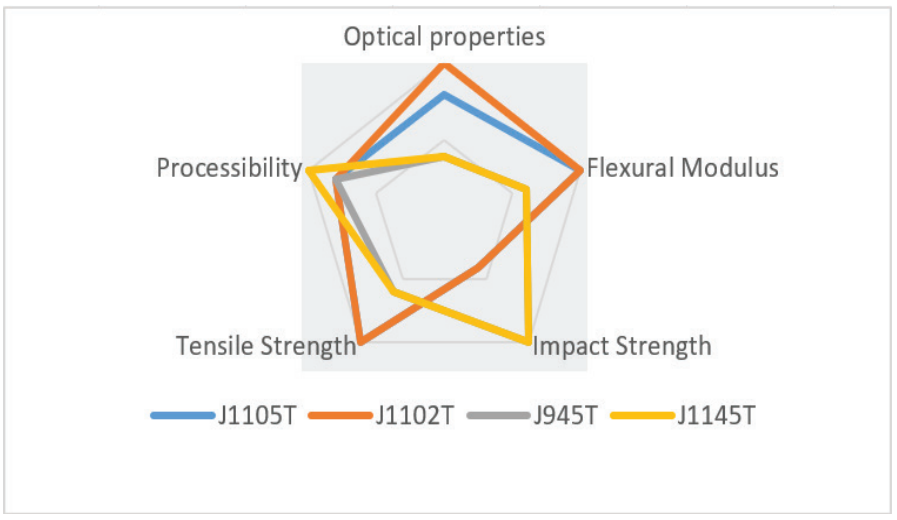
Hyosung Polypropylene Thin Wall Injection Molded Packaging

Polypropylene resin for Thin Wall Injection Molding Packaging is supplied by Hyosung Vina Chemicals to the market in response to the growing need for lighter plastic packaging and more robust plastic components that utilize less plastic material while maintaining the product's useful life.
Hyosung Vina Chemicals offers 02 types of products for thin wall injection molding applications:
Polypropylene Block Copolymer for TWIM application (TWIM Block) with high flowability and optimized balance of stiffness and toughness, suitable for low temperature containers as ice creams, cream cheese and others.
Polypropylene Homopolymer for TWIM application (TWIM Homo) that features good processing, excellent mechanical and optical properties and high flexibility. Due to good optical properties, TWIM Homo are better suited for use in containers for food storage and organizers.

Major Attributes

Hyosung Vina Chemicals Solutions For Thin Wall Packaging Potentially Offers:
· Short cycle time made possible by rapid crystallization and good flow behavior result in increased productivity.
· Offering superior organoleptic performance and solutions free of phthalates.
· Very good stiffness and impact balance.

Benefit of Thin Wall Injection Molded Packaging
· Less material per part means less material cost per part.
· Higher Productivity.
· High Profitability.
· Thinner wall thickness means shorter cooling time and therefore shorter cycle time resulting towards.





Typical Applications





HYOSUNG Polypropylene
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Product Portfolio

Product Properties		Density		Melt Index (230˚C, 2.16kg)		Flexural Modulus		Tensile Strength		Izod/Charpy Impact (Notched,23˚C)		Additivation	Key Feature
Product Name	PP type	ASTM D792 [g/cm³]	ISO 1183 [g/cm³]	ASTM D1238 [g/10min]	ISO 1133 [g/10min]	ASTM D790 [kg/cm²]	ISO 178 [Mpa]	ASTM D638 [kg/cm²]	ISO 527 [Mpa]	ASTM D256 [kg·cm/cm]	ISO 179 [kJ/m2]		
J1105T	Homo	0.9	0.9	60	60	17,000	1,500	380	39	3.0	3.0	-	Short cycle times
J1102T	Homo	0.9	0.9	60	60	17,000	1,500	380	39	3.0	3.0	-	Short cycle times, Transparency
J945T	BCP	0.9	0.9	60	60	13,000	1,150	270	25	8.0	5.5	Antitastic	Short cycle times High Impact at Low Temperature
J1145T	BCP	0.9	0.9	70	70	13,000	1,150	270	25	8.0	5.5	Antitastic	Short cycle times High Impact at Low Temperature

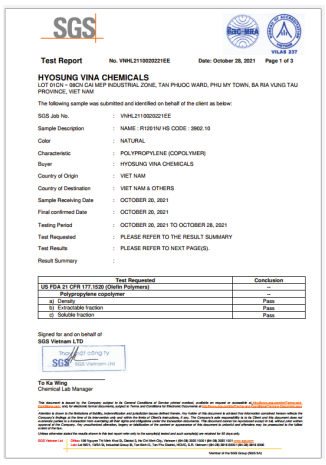
The values listed above are typical values for reference purpose only and shall not be construed as specification

Certificates

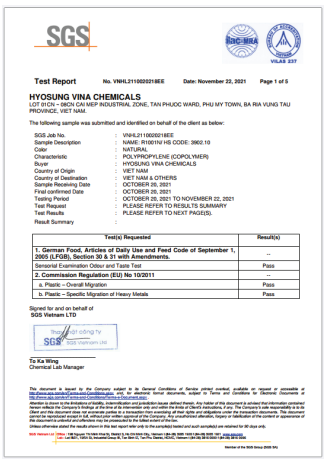
CERTIFICATE	REACH	FDA	EU 10/2011	RoHS	PL	PFAS Free	Phthalate Free	BPA Free
J1105T	•	•	•	•		•	•	•
J1102T	•	•	•	•		•	•	•
J945T	•	•	•	•	•	•	•	•
J1145T	•	•	•	•	•	•	•	•



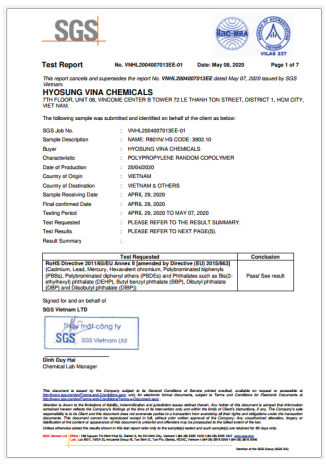
REACH



FDA



EU 10/2011



RoHS



PL

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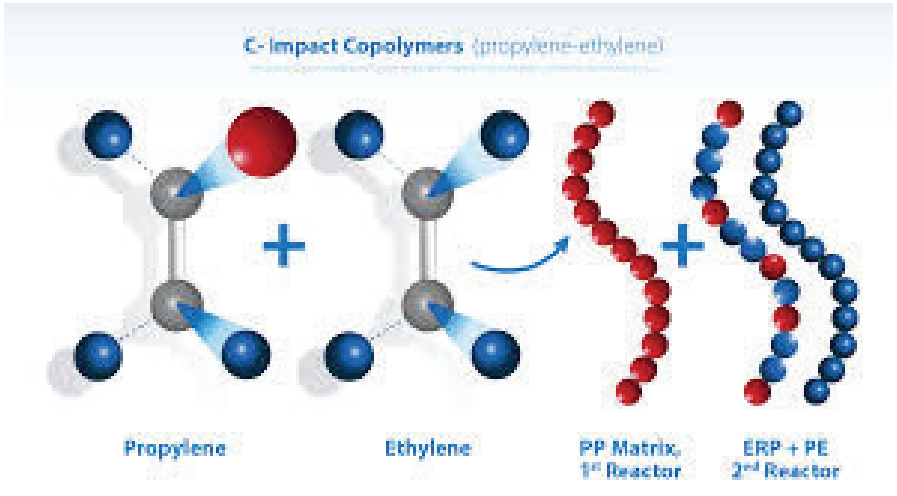
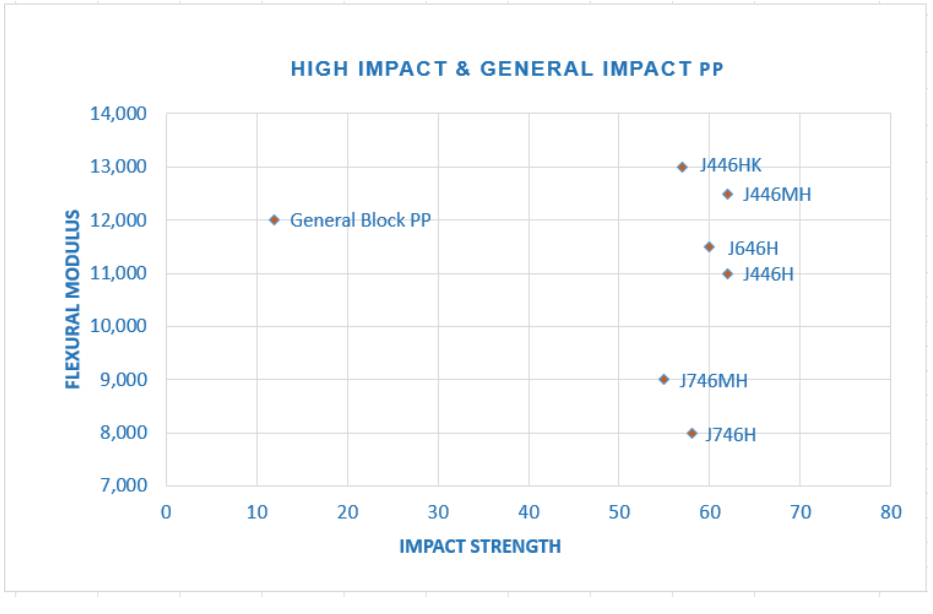
Hyosung Polypropylene Block Copolymer High Impact Resistance

Hyosung Polypropylene Block Copolymer, also known as heterophasic copolymers, are characterized by having high impact and medium to high stiffness.
Hyosung Polypropylene Block Copolymer High Impact Resistance have a balanced stiffness and toughness ratio.
They are suitable for applications required for good flowability and balanced mechanical properties and high impact resistance such as Container, Pallet, Refrigerator, Washing machine, Pain pail, Housewares, Luggage, Battery case, Refrigerators, Dish washers, Vacuum cleaners, and other small appliances.

Major Attributes

Hyosung Polypropylene Block Copolymer High Impact Resistance is a thermoplastic material designed for high toughness and durability by copolymerizing Propylene with Ethylene.
Due to the presence of Ethylene, the stiffness of the resin is somewhat sacrificed. However, this results in excellent impact strength even at low temperatures.





Typical Applications













HYOSUNG Polypropylene
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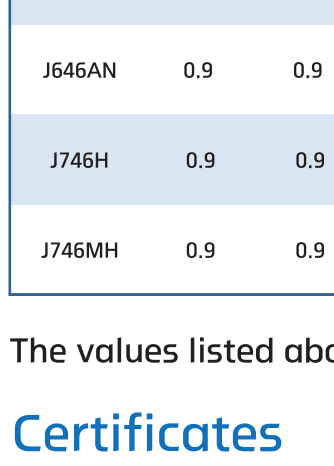
Product Portfolio

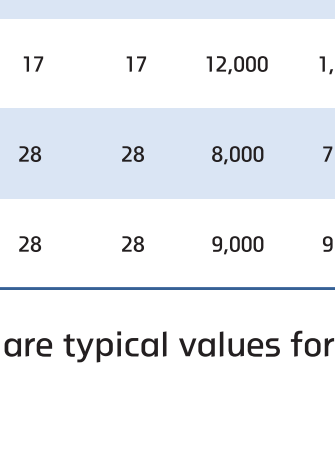
Product Properties / Product Name	Density ASTM D792 [g/cm³]	Density ISO 1183 [g/cm³]	Melt Index (230°C, 2.16kg) ASTM D1238 [g/10min]	Melt Index (230°C, 2.16kg) ISO 1133 [g/10min]	Flexural Modulus ASTM D790 [kg/cm²]	Flexural Modulus ISO 178 [Mpa]	Tensile Strength ASTM D638 [kg/cm²]	Tensile Strength ISO 527 [Mpa]	Izod/Charpy Impact (Notched) 23°C ASTM D256 [kg·cm/cm]	Izod/Charpy Impact (Notched) 23°C ISO 179 [kJ/m2]	Izod/Charpy Impact (Notched) -10°C ASTM D256 [kg·cm/cm]	Izod/Charpy Impact (Notched) -10°C ISO 179 [kJ/m2]	Hardness ASTM D785 [R - scale]	Additivation	Key Feature
J446H	0.9	0.9	4	4	11,000	1,000	250	22	N.B	N.B	8	7	88	Antistatic	High Impact Strength
J446MH	0.9	0.9	4	4	12,500	1,000	260	26	N.B	N.B	7	5	92	Antistatic	High Impact Strength, Good Stiffness
J446HK	0.9	0.9	4.5	4.5	13,000	1,200	270	26	N.B	N.B	7	5	92	UV stabilizer	High Impact Strength, Good Stiffness
J646H	0.9	0.9	8	8	11,500	1,050	230	20	N.B	N.B	9	9	80	Antistatic	High Impact Strength
J646AN	0.9	0.9	17	17	12,000	1,100	250	22	13	13	6	5	90	Antistatic	Balance Impact and Stiffness
J746H	0.9	0.9	28	28	8,000	750	180	17	N.B	N.B	12	11	60	-	High Impact Strength
J746MH	0.9	0.9	28	28	9,000	950	190	19	N.B	N.B	9	10	65	-	High Impact Strength

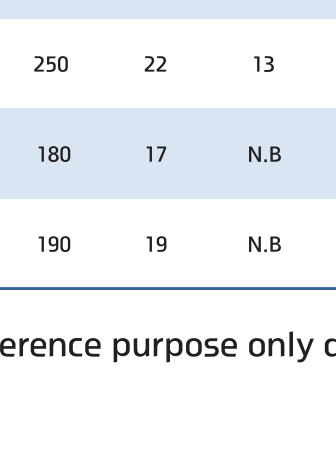
The values listed above are typical values for reference purpose only and shall not be construed as specification

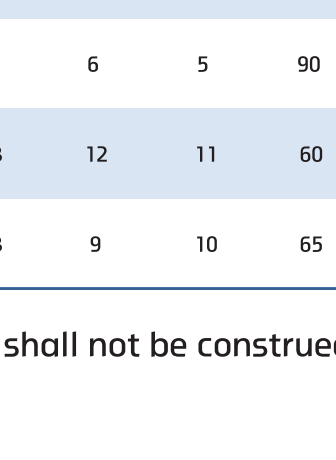
Certificates

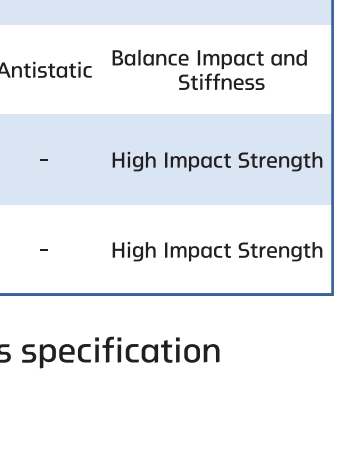
CERTIFICATE	REACH	FDA	EU 10/2011	RoHS	UL94HB	PL	Phthalate Free	BPA Free
J446H	•	•	•	•	•		•	•
J446MH	•	•	•	•			•	•
J446HK	•	•	•	•		•	•	•
J646H	•	•	•	•	•		•	•
J646AN	•	•	•	•			•	•
J746H	•	•	•	•			•	•
J746MH	•	•	•	•			•	•











REACH FDA EU RoHS UL

HYOSUNG Polypropylene
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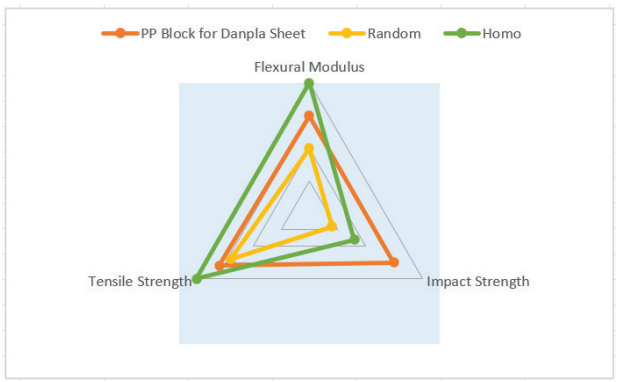
Hyosung Polypropylene Corrugated Sheet

Corrugated sheet, also known as plastic wave, has a wide range of applications and is commonly used in industry and advertising.
Hyosung Polypropylene for Corrugated Sheet including Topilene HJ340N and J340N are specially designed polypropylene block copolymer that features excellent stiffness & impact strength balance and enhanced thermal stability, suitable for high stiffness sheets, danpla and industrial materials

Major Attributes

· Excellent stiffness & Impact strength balance
· Enhanced thermal stability
· Good processability in extrusion process



Typical Applications







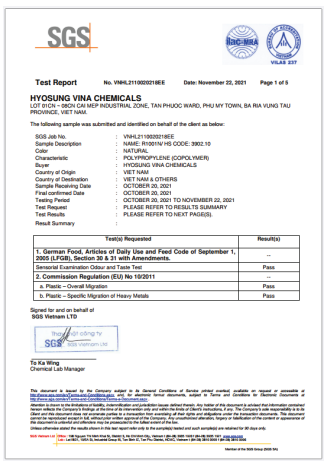
Product Portfolio

Product Properties		Density		Melt Index (230°C, 2.16kg)		Flexural Modulus		Tensile Strength		Izod/Charpy Impact (Notched, 23°C)		Additivation	Key Feature
Product Name	PP Type	ASTM D792 [g/cm³]	ISO 1183 [g/cm³]	ASTM D1238 [g/10min]	ISO 1133 [g/10min]	ASTM D790 [kg/cm²]	ISO 178 [Mpa]	ASTM D638 [kg/cm²]	ISO 527 [Mpa]	ASTM D256 [kg·cm/cm]	ISO 179 [kJ/m2]		
HJ340N	BCP	0.9	0.9	1.0	1.0	15,000	1,300	320	28	15	12	-	Good Stiffness
J340N	BCP	0.9	0.9	2.0	2.0	13,000	1,100	280	25	15	12	-	Stiffness & Impact B

The values listed above are typical values for reference purpose only and shall not be construed as specification

Certificates

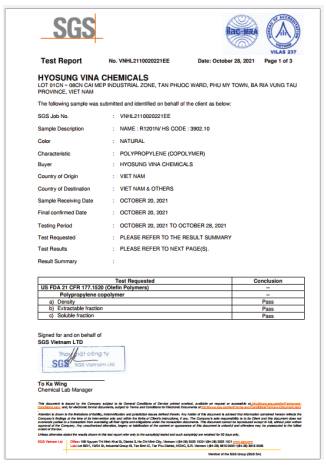
CERTIFICATE	REACH	EU	RoHS	FDA
HJ340N	•	•	•	•
J340N	•	•	•	•


SGS
Test Report No. VNHL2110020218EE Date: November 22, 2021 Page 1 of 5
HYOSUNG VINA CHEMICALS
LOT 9+CN – 08CN CAI MEP INDUSTRIAL ZONE, TAN PHUOC WARD, PHU MY TOWN, BA RIA VUNG TAU PROVINCE, VIET NAM.
The following sample was submitted and identified on behalf of the client as below:
SGS Job No. : VNHL2110020218EE
Sample Description : NAME: R1601N/ HS CODE: 3902.10
Color : NATURAL
Characteristic : POLYPROPYLENE (COPOLYMER)
Buyer : HYOSUNG VINA CHEMICALS
Country of Origin : VIET NAM
Country of Destination : VIET NAM & OTHERS
Sample Receiving Date : OCTOBER 20, 2021
Final confirmed Date : OCTOBER 20, 2021
Testing Period : OCTOBER 20, 2021 TO NOVEMBER 22, 2021
Test Request : PLEASE REFER TO RESULTS SUMMARY
Test Results : PLEASE REFER TO NEXT PAGE(S).
Result Summary :

Test(s) Requested	Result(s)
1. German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 & 31 with Amendments.	--
Sensorial Examination Odour and Taste Test	Pass
2. Commission Regulation (EU) No 10/2011	--
a. Plastic – Overall Migration	Pass
b. Plastic – Specific Migration of Heavy Metals	Pass

Signed for and on behalf of
SGS Vietnam LTD
To Ka Wing
Chemical Lab Manager

EU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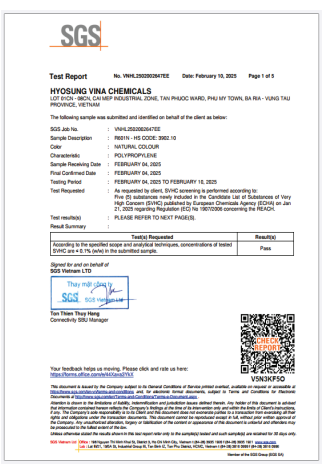
Test Report No. VNHL2110020221EE Date: October 28, 2021 Page 1 of 3
HYOSUNG VINA CHEMICALS
LOT 9+CN – 08CN CAI MEP INDUSTRIAL ZONE, TAN PHUOC WARD, PHU MY TOWN, BA RIA VUNG TAU PROVINCE, VIET NAM
The following sample was submitted and identified on behalf of the client as below:
SGS Job No. : VNHL2110020221EE
Sample Description : NAME : R1201N/ HS CODE : 3902.10
Color : NATURAL
Characteristic : POLYPROPYLENE (COPOLYMER)
Buyer : HYOSUNG VINA CHEMICALS
Country of Origin : VIET NAM
Country of Destination : VIET NAM & OTHERS
Sample Receiving Date : OCTOBER 26, 2021
Final confirmed Date : OCTOBER 26, 2021
Testing Period : OCTOBER 26, 2021 TO OCTOBER 28, 2021
Test Requested : PLEASE REFER TO THE RESULT SUMMARY
Test Results : PLEASE REFER TO NEXT PAGE(S).
Result Summary :

Test Requested	Conclusion
US FDA 21 CFR 177.1520 (Olefin Polymers)	--
Polypropylene copolymer	--
a) Density	Pass
b) Extractable fraction	Pass
c) Soluble fraction	Pass

Signed for and on behalf of
SGS Vietnam LTD
To Ka Wing
Chemical Lab Manager

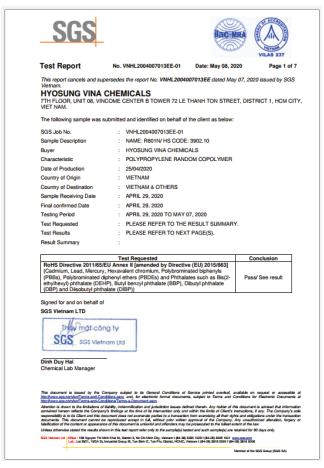
FDA


SGS
Test Report No. VNHL2502002647EE Date: February 10, 2025 Page 1 of 5
HYOSUNG VINA CHEMICALS
LOT 9+CN - 08CN, CAI MEP INDUSTRIAL ZONE, TAN PHUOC WARD, PHU MY TOWN, BA RIA - VUNG TAU PROVINCE, VIETNAM
The following sample was submitted and identified on behalf of the client as below:
SGS Job No. : VNHL2502002647EE
Sample Description : R601N - HS CODE: 3902.10
Color : NATURAL COLOUR
Characteristic : POLYPROPYLENE
Sample Receiving Date : FEBRUARY 04, 2025
Final Confirmed Date : FEBRUARY 04, 2025
Testing Period : FEBRUARY 04, 2025 TO FEBRUARY 18, 2025
Test Requested : As requested by client, SVHC screening is performed according to: Five (5) substances newly included in the Candidate List of Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) on Jan 21, 2025 regarding Regulation (EC) No 1907/2006 concerning the REACH.
Test result(s) : PLEASE REFER TO NEXT PAGE(S).
Result Summary :

Test(s) Requested	Result(s)
According to the specified scope and analytical techniques, concentrations of tested SVHC are < 0.1% (w/w) in the submitted sample.	Pass

Signed for and on behalf of
SGS Vietnam LTD
Tran Thien Thuy Hang
Connectivity SSU Manager
Your feedback helps us moving. Please click and rate us here:
https://forms.office.com/e/kKVbxsQ7kX
V5N3KF5O

REACH


SGS
Test Report No. VNHL2004007013EE-01 Date: May 08, 2020 Page 1 of 7
This report cancels and supersedes the report No. VNHL2004007013EE dated May 07, 2020 issued by SGS Vietnam.
HYOSUNG VINA CHEMICALS
7TH FLOOR, UNIT 08, VINCOM CENTER B TOWER 72 LE THANH TON STREET, DISTRICT 1, HCM CITY, VIET NAM.
The following sample was submitted and identified on behalf of the client as below:
SGS Job No. : VNHL2004007013EE-01
Sample Description : NAME: R601N/ HS CODE: 3902.10
Buyer : HYOSUNG VINA CHEMICALS
Characteristic : POLYPROPYLENE RANDOM COPOLYMER
Date of Production : 25/04/2020
Country of Origin : VIETNAM
Country of Destination : VIETNAM & OTHERS
Sample Receiving Date : APRIL 29, 2020
Final confirmed Date : APRIL 29, 2020
Testing Period : APRIL 29, 2020 TO MAY 07, 2020
Test Requested : PLEASE REFER TO THE RESULT SUMMARY.
Test Results : PLEASE REFER TO NEXT PAGE(S).
Result Summary :

Test Requested	Conclusion
RoHS Directive 2011/65/EU Annex II [amended by Directive (EU) 2015/863] (Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP))	Pass/ See result

Signed for and on behalf of
SGS Vietnam LTD
Dinh Duy Hai
Chemical Lab Manager

RoHS

HYOSUNG Polypropylene
The Next Circular Economy

Hyosung Polypropylene Thermoforming

Foods like dairy, shelf-stable, and frozen goods are all protected by thermoformed packaging, which is essential to our everyday life.
Hyosung Vina Chemicals' Thermoforming Polypropylene, a high-performance homopolymer with favorable optical and physical qualities, the resins are the material of choice for rigid packaging applications provides lightweight, safe, and convenient packaging while preserving the flavor and freshness of food.

Major Attributes

- Heat resistance
- Optical properties
- Excellent stiffness & Impact strength balance

Typical Applications





Product Portfolio

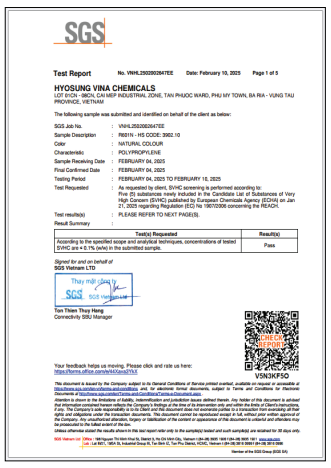
Polypropylene For Thermoforming

Product Properties		Density		Melt Index (230°C, 2.16kg)		Flexural Modulus		Tensile Strength		Izod/Charpy Impact (Notched, 23℃)		Hardness	Additivation	Key Feature
Product Name	PP Type	ASTM D792 [g/cm³]	ISO 1183 [g/cm³]	ASTM D1238 [g/10min]	ISO 1133 [g/10min]	ASTM D790 [kg/cm²]	ISO 178 [Mpa]	ASTM D638 [kg/㎠]	ISO 527 [Mpa]	ASTM D256 [kg·cm/cm]	ISO 179 [kJ/m2]	ASTM D785 [R-scale]		
B200N	Homo	0.9	0.9	0.5	0.5	18,000	1,600	380	36	6.5	5.0	105	Barefoot	High stiffness & Heat Resistance
B300N	Homo	0.9	0.9	2.3	2.3	18,000	1,600	370	36	4.0	4.0	105	Barefoot	High stiffness & Heat Resistance
B302N	Homo	0.9	0.9	3.0	3.0	17,500	1,400	370	36	4.0	4.0	105	Nucleated	Good Transparent

The values listed above are typical values for reference purpose only and shall not be construed as specification

Certificates

CERTIFICATE	REACH	FDA	EU 10/2011	RoHS	Phthalate Free	BPA Free
B200N	•	•	•	•	•	•
B300N	•	•	•	•	•	•
B302N	•	•	•	•	•	•



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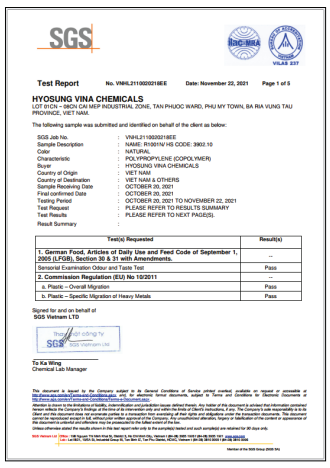
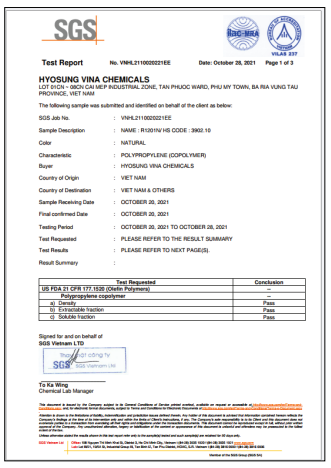


EU 10/2011



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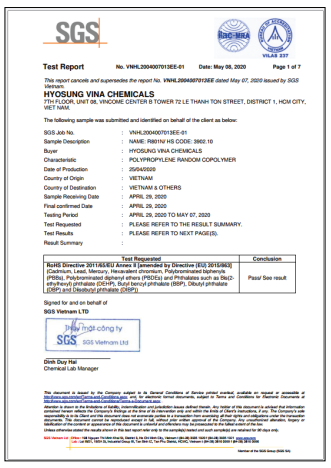
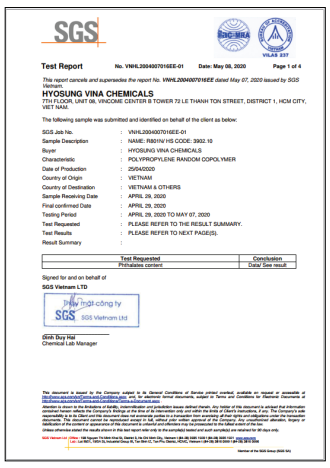


RoHS



Phthalates Free

HYOSUNG Polypropylene
The Next Circular Economy

Hyosung Polypropylene General Block Copolymers

Hyosung Vina Chemicals PP General Block Copolymers provide a balanced stiffness/ impact ratio and a wide meltflow range for general applications like injection molding parts for housewares, appliances, battery cases, toys, platic pails, pallets, crates, and more.

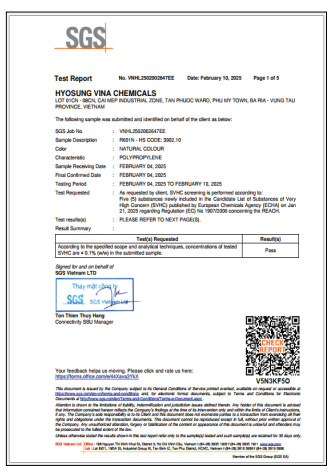
Product Portfolio

Product Properties		Density		Melt Index (230℃, 2.16kg)		Flexural Modulus		Tensile Strength		Notched Impact Strength (23˚C)		Additivation	Key Feature
Product Name	PP Type	ASTM D792 [g/cm³]	ISO 1183 [g/cm³]	ASTM D1238 [g/10min]	ISO 1133 [g/10min]	ASTM D790 [kg/cm²]	ISO 178 [Mpa]	ASTM D638 [kg/cm²]	ISO 527 [Mpa]	ASTM D256 [kg·cm/cm]	ISO 179 [kJ/m2]		
J440N	BCP	0.9	0.9	4.0	4.0	12,000	1,050	280	24	12	10	-	General Purpose
J640N	BCP	0.9	0.9	10	10	12,000	1,050	250	21	11	9.0	-	General Purpose
J642N	BCP	0.9	0.9	10	10	15,000	1,300	280	30	10	8.5	Nucleated	Good stiffness
J642AN	BCP	0.9	0.9	20	20	12,500	1,100	250	21	11	9.0	Antistatic Nucleated	General Purpose
J740N	BCP	0.9	0.9	30	30	12,000	1,050	260	25	10	7.0	-	General Purpose
J742N	BCP	0.9	0.9	30	30	12,000	1,050	260	24	10	7.0	Antistatic Nucleated	General Purpose
J842N	BCP	0.9	0.9	45	45	14,500	1,250	280	27	7.0	5.0	Nucleated	Good stiffness
J945N	BCP	0.9	0.9	55	55	14,500	1,250	280	28	6.0	5.0	Nucleated	Good stiffness

The values listed above are typical values for reference purpose only and shall not be construed as specification

Certificates

CERTIFICATE	REACH	FDA	EU 10/2011	RoHS	PL	PFAS Free	Phthalate Free	BPA Free
J440N	•	•	•	•	•	•	•	•
J640N	•	•	•	•	•	•	•	•
J642N	•	•	•	•	•	•	•	•
J642AN	•	•	•	•		•	•	•
J740N	•	•	•	•	•	•	•	•
J742N	•	•	•	•		•	•	•
J842N	•	•	•	•	•	•	•	•
J945N	•	•	•	•	•	•	•	•



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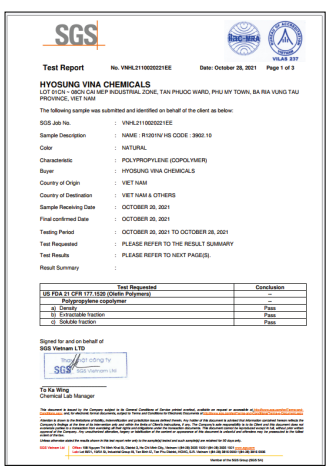
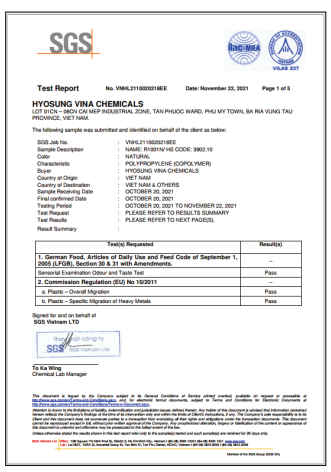
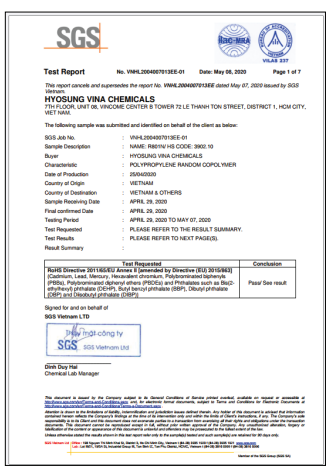


FDA



EU 10/2011



RoHS



PL

Typical Applications











HYOSUNG Polypropylene

The Next Circular Economy

RIGID PACKAGING APPLICATIONS

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