



Food conveyor belt

TM
POKETONE
HYOSUNG POLYKETONE

Global Warming Potential

* PA6	6.70
* PA66	6.40
* PBT	4.88
* PC	3.40
* POM	3.20
** PK	3.08 (kg CO ₂ eq)

* Other ETP data is based upon the Eco-profiles data from www.plasticseurope.org

** PK Data is based upon Korea LCI database and Ecoinvent database.

Non Toxic High Efficiency

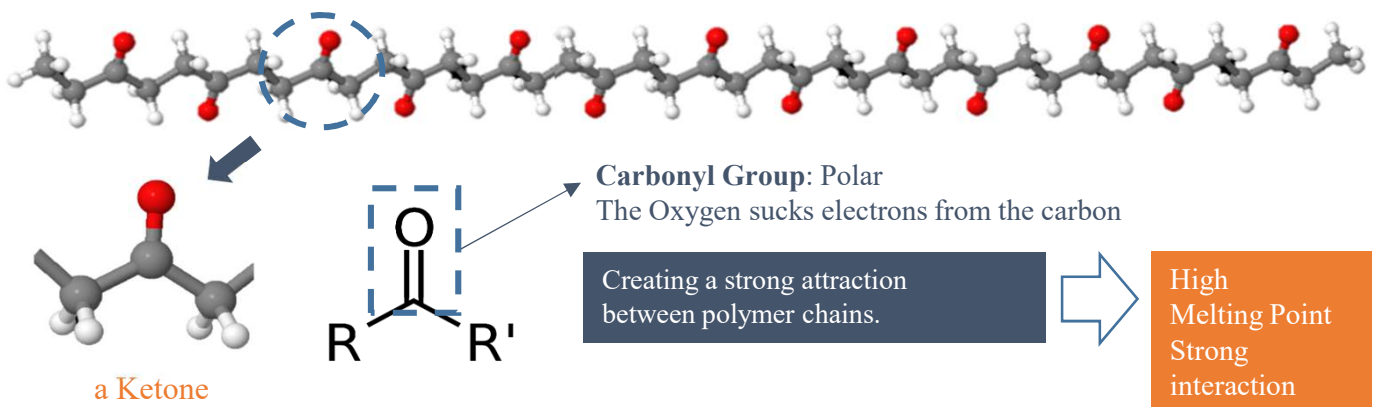


Acrylate Free
Melamine Free
Bisphenol A Free
Formaldehyde Free
Lead/ Chrome/ Free
Phthalate Free

HYOSUNG CHEMICAL

Product Overview

A new thermoplastic polymer HYOSUNG POKETONE is a family of Semi-crystalline aliphatic polyketone, made of carbon monoxide(CO) and olefins. POKETONE Terpolymer of CO, ethylene and propylene are used as engineering plastics in a broad range of application with eco-friendly (LCA, Lifetime Cycle Assessment is lower than PA66, POM) and non-toxic characteristics, such as no VOCs (Volatile Organic compounds), free of formaldehyde and acrylonitrile, making it perfect for baby toys, FOOD CONTACT and medical applications. All F grades of POKETONE are satisfied with FDA, NSF 51,61, and USP Class VI.



Certification

POKETONE polymers for food contact and medical applications are thoroughly tested for toxicity and biocompatibility. For all the base grades, POKETONE polymers are filed with the FDA and used in the development of food contact and medical devices



Good Chemical resistance

PK Polymers are tough. With few known solvent, this new class aliphatic polyketones has good barrier properties and chemical resistance—even when exposed to extreme temperatures.



Visual & properties change after exposure NaOH 1.5% (Ph 13.7)

* ΔE: 0hr → 210hr

	Tensile strength Retention(%)	Natural	White	Blue
Natural	94			
White	92			
Blue	92			

* Actual exposure environment: Starting at 71°C → Cooling down until finally 31°C for 210hrs

exposure chloramines (ph3)

70°C, 1 week	70°C, 2 week	70°C, 3 week
<p>POKETONE</p> <p>POM</p>		

* Bowl cleaner 100g at water 6 liters, 70°C → appx. 1.63% concentrate

* POKETONE initial weight is 10.6g per bar → final weight is 10.9g (103% retention rate)

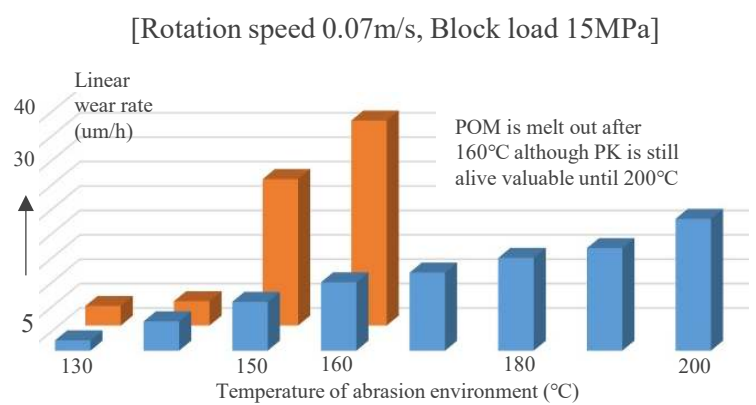
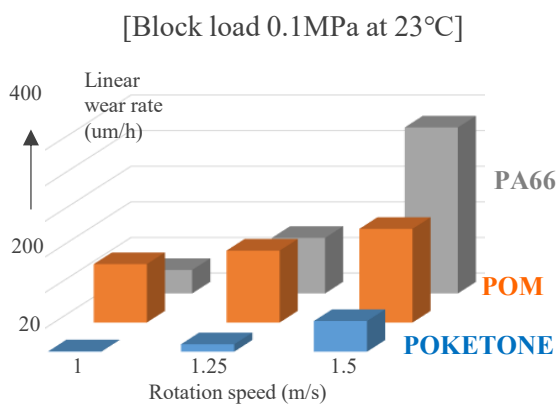
* POM initial weight is 11.8g per bar → final weight is 2.25g (19% retention rate)

Friction and Wear resistance

The tribological performance of gear assemblies and related mechanical systems can be improved if at least one of the wear-related components is made from PK



*Block on ring: ASTM G137



Properties

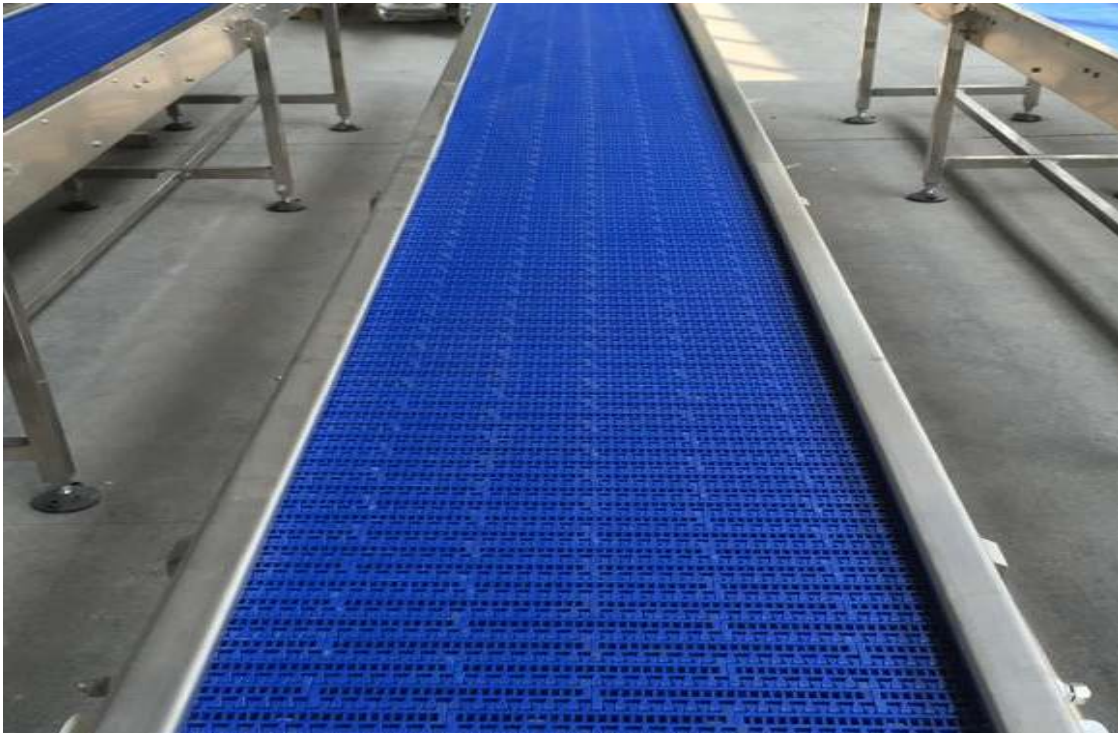
* Method: ISO

	Unit	M330F	M630F	M730F
Density	-	1.24	1.24	1.24
Melt Index	g/10min	60	6	3
Tensile Strength	MPa	60	58	58
Elongation at Break	%	> 240	> 240	> 240
Flexural Strength	MPa	57	53	48
Flexural Modulus	MPa	1,400	1,250	1,200
Impact Strength	KJ/m2	8	17	19
Toughness	-	Best	Excellent	Excellent

Application

✓ Benefits for Food contact conveyor belt parts

- ❖ No formaldehyde
- ❖ FDA certifications
- ❖ High wear resistance (No particles)
- ❖ High chemical resistance





Hyosung Chemical POKETONE Key to your Business Success

Competitive material must meet the demands of the times, which leads to corporate competitiveness. With outstanding wear resistance, chemical resistance and gas barrier properties, POKETONE adds values for creating the Next-generation products.



**Need some help with a our service or POKETONE?
Ask us a question, browse our website, or contact us directly through
email and phone so we can give you a helping hand.**

Web Page: www.poketone.com

H. O Email: poketone@hyosung.com

Republic of Korea

+82 2 2146 5589, issooho@hyosung.com

China

+86 021 62250312 (ext.8030), yjikim77@hyosung.com

+82 2 2146 5573, ropopchem@hyosung.com / +82 2 2146 5577, kibeom.kang@hyosung.com

Europe

+82 2 2146 5572, [hjicim13@hyosung.com](mailto:hjikim13@hyosung.com)

America

+82 2 2146 5575, sej@hyosung.com

R.O.W (Rest of world)

+82 2 2146 5551, [hjicim13@hyosung.com](mailto:hjikim13@hyosung.com)