

Automotive

Radiator End Tank /
Fuel Tube / Fuel Tank /
Wheel Cover / Connector
/ Fuel Filler Door

Electronics

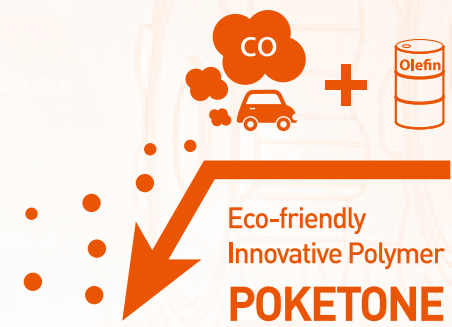
Connector /
Gear(OA, Machine) /
Housing

Industrial Parts

Pipe & Tube /
Oil Seal / Conveyor Parts /
Cable Tie

General Purpose

Water Related Parts / Railway
Fastening System /
Cosmetic Parts /
Packaging



New Wave of Innovation in Materials

POKETONETM
HYOSUNG POLYKETONE



HYOSUNG

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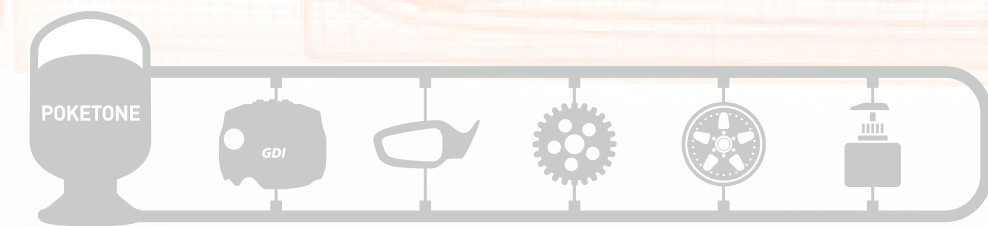
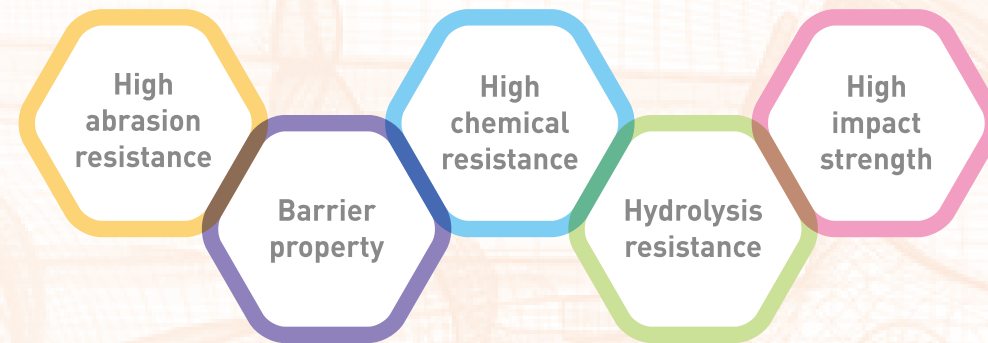
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HYOSUNG

POKETONE is the world's new material only Hyosung successfully commercialized

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 applications while its Copolymer of CO and ethylene are under development for super fiber and high performance membrane.

HYOSUNG POKETONE not only supports a more sustainable society, but also brings innovation to various industries including Automotive, E&E, and Packaging with its unique combination of characteristics including excellent wear and chemical resistance, superior impact strength, gas and hydrocarbon barrier properties, and hydrolysis resistance.

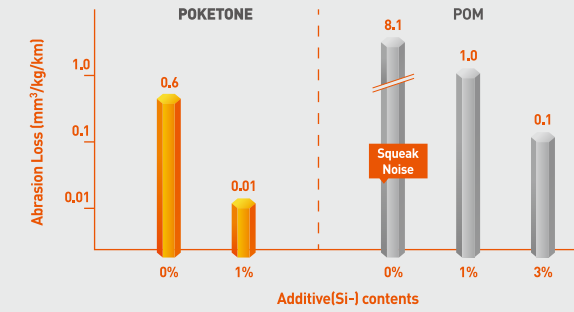
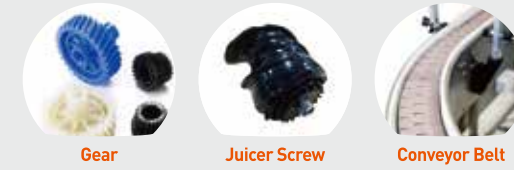


Key Features of POKETONE

Physical Properties

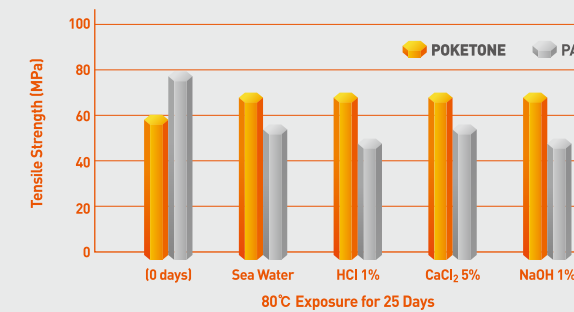
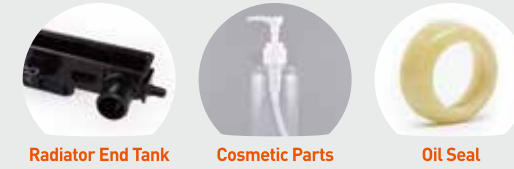
Abrasion/Wear Resistance

14 times higher wear properties than POM, reducing noise issues in variable wear applications



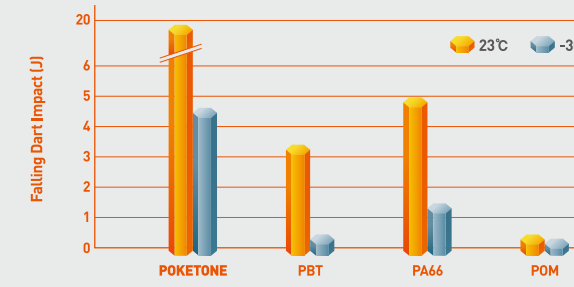
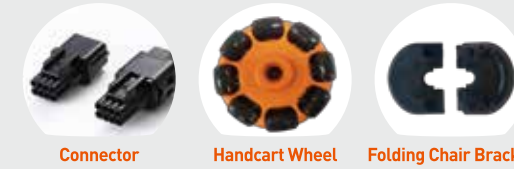
Chemical Resistance

Highly resistant to automotive fluids, hydrocarbon solvents, salts and weak acids/bases



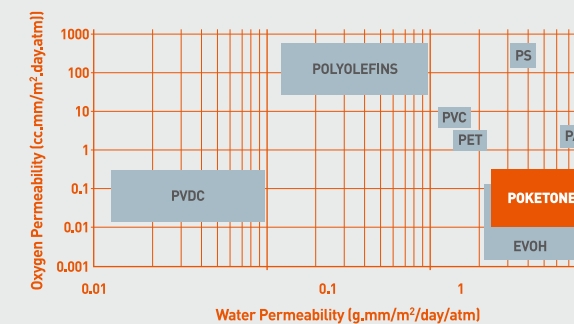
Impact Strength

More than 2.3 times higher impact strength compared to Nylon, PBT



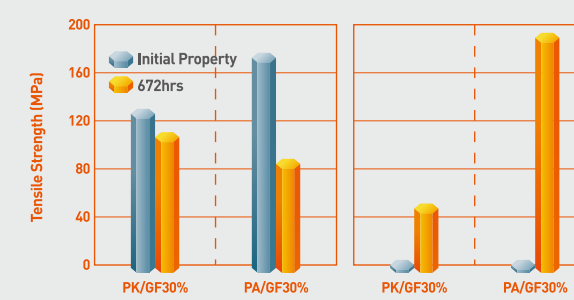
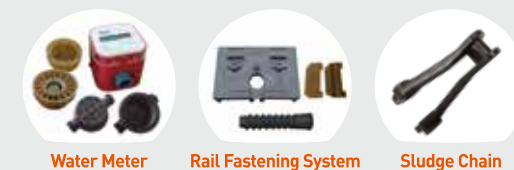
Barrier Properties

Excellent barrier properties to hydrocarbons and oxygen suitable for food packing

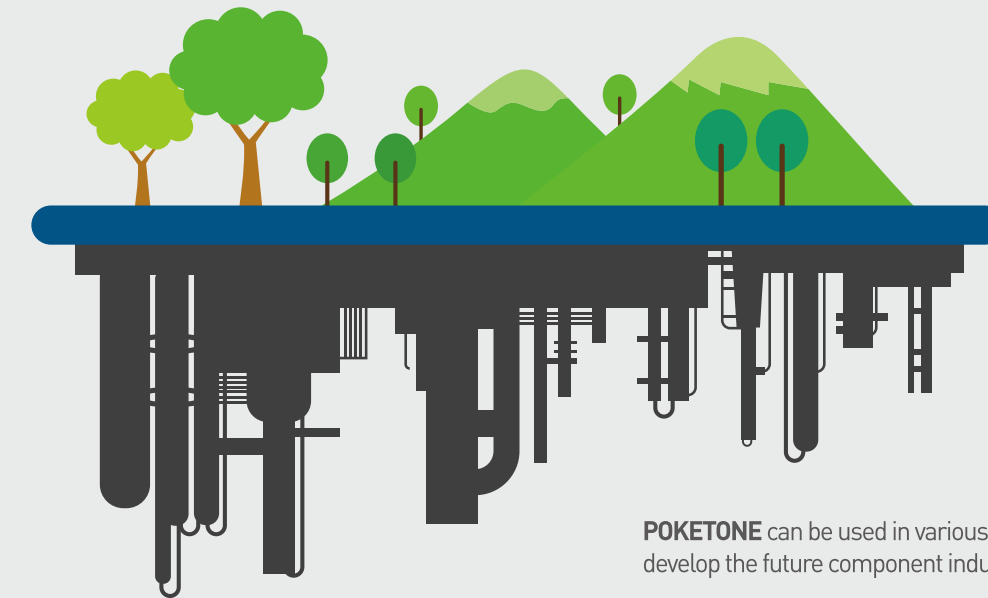


Hydrolysis Resistance

Stable property retention to moisture, moisture absorption is approximately 1/4, compared to PA



“ Innovative Engineering Plastics we have dreamed of ”



POKETONE can be used in various applications and will continue to develop the future component industries as a leading material.

Properties	Test Method	Unit	M930A	M330A	M620A	M630A	M730A
Physical Property							
Density	ASTM D792	g/cm ³	1.24	1.24	1.24	1.24	1.24
Mould Shrinkage (3mm thick.)	ASTM D955	%	1.8~2.0	1.8~2.0	1.8~2.0	1.8~2.0	1.8~2.0
Thermal Property							
Melting Temperature	ASTM D3418	°C	222	222	207	222	222
Melt Flow Index (240°C, 2.16kg)	ASTM D1238	g/10min	200	60	6	6	3
HDT (18.6 kgf/cm ²)	ASTM D648	°C	105	105	90	102	102
Mechanical Property							
Tensile Strength	ASTM D638	MPa	62	60	50	58	57
Elongation at Break	ASTM D638	%	≥150	≥300	≥240	≥300	≥240
Flexural Strength	ASTM D790	MPa	60	57	47	53	50
Flexural Modulus	ASTM D790	MPa	1,550	1,500	1,100	1,350	1,250
Notched Izod Impact Strength	ASTM D256	J/m	60	95	200	220	240
	ISO 180/1A	kJ/m ²	6	7	13	15	20
	ASTM D256	J/m	50	70	80	80	80
	ISO 180/1A	kJ/m ²	4	5	6	7	7
Notched Charpy Impact Strength	ASTM D256	J/m	45	60	60	65	65
	ISO 180/1A	kJ/m ²	3	4	4	6	6
	ASTM D256	J/m	30	40	45	52	52
	ISO 180/1A	kJ/m ²	2	3	3	4	4
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	6	8	14	17	18
	ISO 179/1eA	kJ/m ²	3	4	4	5	6
	ISO 179/1eA	kJ/m ²	2	4	4	4	5
	ISO 179/1eA	kJ/m ²	2	2	3	3	4

* Moisture Absorption (23°C, 50%RH) : 0.5% / Flammability : HB (0.8, 1.5, 3.0mm thick.)
* The data listed here is not for specification warranty, but typical value.