



HYOSUNG CHEMICAL

POKETONE in Boiler Industry

Non Toxic
High Efficiency



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

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.

Further Information
www.poketone.com



■ **POKETONE** is a family of semi-crystalline aliphatic Polyketone, made of CO and olefins

- Low water absorption and high chemical resistance
- Good wear/abrasion resistance and NVH(Noise, Vibration, Harshness) performance
- Balanced properties: tensile strength, impact strength and elongation
- Short cycle time for injection molding

■ POKETONE In Boiler Industry

- POKETONE is used in Boiler industry that requires Chemical and Water Resistance, Mechanical stability.

Thanks to its balanced properties, POKETONE can cover a variety of Boiler parts. POKETONE can be a solution for various Boiler parts.



▶ PK in Boiler Industry

1) Boiler Exhaust Heat Exchanger(Commercialized in Korea_Kiturami Corporation)

-PK grade: M33AG6A-NP0, M33AG3A-NP0, M330A

■ POKETONE is TOUGH ENOUGH for Boiler Industry

- 1) **Chemical resistance:** PK is highly resistant to corrosion, making it suitable for applications exposed to corrosive gases in the exhaust system of boiler.
- 2) **Water resistance:** PK exhibits excellent resistance to water absorption.
- 3) **Lightweight:** PK is lightweight compared to steel.
- 4) **Mechanical stability:** PK can withstand high temperatures without significant deformation or loss of mechanical properties.

POKETONE has good Chemical and Water Resistance

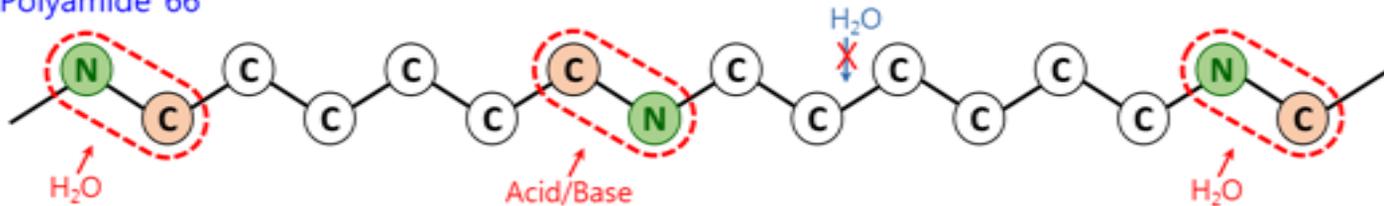
**PK is highly resistant to corrosion, making it suitable for applications exposed to corrosive gases in the exhaust of boiler.

	Semi-Crystalline							Amorphous		
	PK	PA66	PA12	POM	PBT	PPS	PVDF	PPO	PSU	PC
Hydrocarbons										
Aliphatic	⊙	⊙	⊙	⊙	⊙	⊙	⊙	●	●	●
Aromatic	⊙	⊙	⊙	⊙	⊙	⊙	⊙	●	●	●
Halogenated	⊙	⊙	⊙	⊙	⊙	⊙	⊙	●	●	●
Ketones	⊙	⊙	⊙	⊙	⊙	⊙	⊙	●	●	●
Esters/Ethers	⊙	⊙	⊙	⊙	⊙	⊙	⊙	●	●	●
Aldehydes	⊙	●	●	⊙	⊙	⊙	⊙	●	●	●
Aqueous										
Water	⊙	●	⊙	⊙	●	⊙	⊙	⊙	⊙	⊙
Weak Acids	⊙	●	●	●	●	⊙	⊙	⊙	⊙	⊙
Weak Bases	⊙	●	●	⊙	●	⊙	●	⊙	●	⊙
Strong Acids	●	●	●	●	●	●	⊙	⊙	●	⊙
Strong Bases	●	●	●	⊙	●	●	●	●	●	●

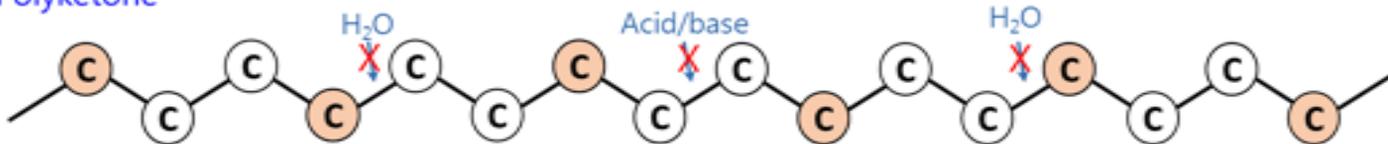
⊙ : Resistant ● : Not Resistant

- It shows excellent resistance to many chemicals except strong acids.

Polyamide 66



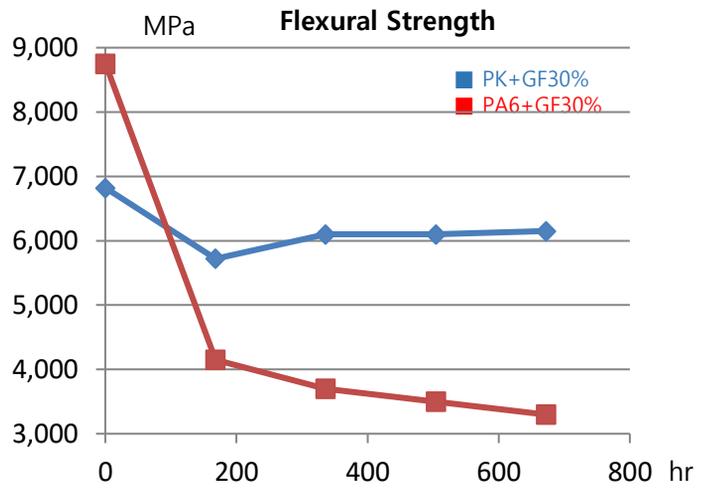
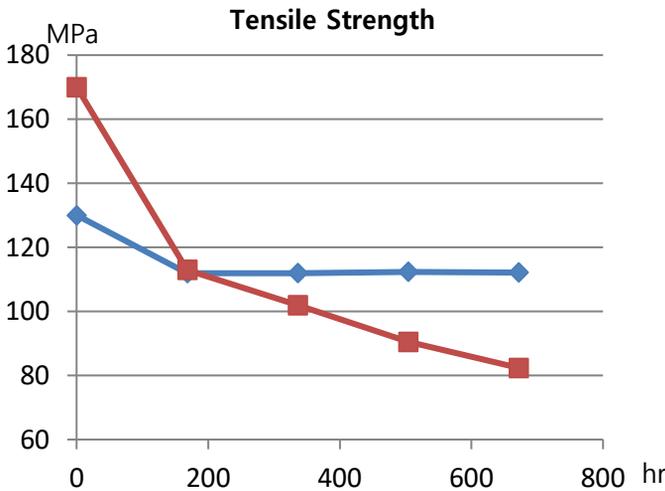
Polyketone



⊙ : -CH₂- or -CH- (PK only) ○ : -CO- ⊙ : -NH- ⊙ : -O-

POKETONE has good Mechanical stability

****PK can withstand without significant deformation or loss of mechanical properties.**



Material	Tensile Strength (Mpa)			Flexural Strength (Mpa)			Flexural Modulus (Mpa)		
	168hr	672hr	Retention Rate(%)	168hr	672hr	Retention Rate(%)	168hr	672hr	Retention Rate(%)
PK+GF 30% BLK	112	112	86	163	166	90	5,720	6,150	90
PK+GF 35% BLK	122	121	90	173	180	88	6,720	7,200	92
PA6+GF 30% BLK	113	82	48	145	103	42	4,150	3,300	38
PA6+GF 35% BLK	124	94	52	160	123	47	5,050	4,200	43

(23°C water immersion)

Certifications and Approvals



Eco-friendly material

GWP	**PK	*ABS	*POM	*PC	*PA66	*PA6
Figure	3.08	3.10	3.20	3.40	6.40	6.70

- 1) POKETONE™ is eco-friendly with low Global Warming Potential. (lower than PA66, POM)
- 2) POKETONE™ is non-toxic: no VOCs (Volatile Organic Compounds), free of formaldehyde, heavy metal and acrylonitrile
- 3) 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.

· POKETONE commercial Plant in South Korea, Ul-san City, Production capacity : 50,000 MT/Year



· Excellent Wear Resistance · Low Noise · Low abrasion loss (no particle) · Excellent chemical resistance

H.Q. (Korea)

235, Banpo-Daero, Seocho-Gu, Seoul, Korea

Tel +82-2-2146-5570~5577

Email: poketone@hyosung.com

Asia (China)

Room 1115, Shanghai International Trading Center No.2201 Yan An Xi Road Road,
Shanghai, 200336, China

Tel +86-21-6209-0123(Ext. 194 or 161)

Asia (India)

Building No 8, 2nd Floor, Tower B, DLF Cyber City,
Phase II Gurgaon Haryana 122002, India

Tel: +91-124-626-7777(Ext.122)

America

235, Banpo-Daero, Seocho-Gu, Seoul, Korea

Tel +82-2-2146-557

Europe (Germany)

3. Obergeschoss Mergenthalerallee 15-21, 65760 Eschborn

Tel: +49-6196-640240

Europe(Turkey)

Büyükdere Cad.Noramın Is Mrk. No:237

Kat:3 D:303-304 34398 Maslak/Istanbul

Tel: +90-212-284-1601(Ext.122)

Further Information
www.poketone.com

POKETONE
HYOSUNG POLYKETONE

+Note : The data contained in this publication are based on our current internal knowledge and experience, these do not imply any guarantee of certain properties. Most images are from googling image researching, which is considered as public open information.