

# POKETONE™

The all-rounder



HYOSUNG began developing polyketone (PK) in 2004. After 10 years of research and development, the material was successfully commercialised in 2014.

HYOSUNG CHEMICAL produces this tough, semi-crystalline thermoplastic under the POKETONE™ brand in Yongyeon, Ulsan, South Korea, with a capacity of 50,000 tonnes per year. Thanks to its special properties, polyketone can be used in a wide range of segments, including applications involving contact with drinking water and food.

Polyketone is an excellent addition to engineering plastics such as PA, POM and PBT. PK is becoming increasingly popular due to its exceptional properties.

## Exceptional properties

**High impact strength** – POKETONE™ takes advantage of the flexible CO/olefin polymer matrix.

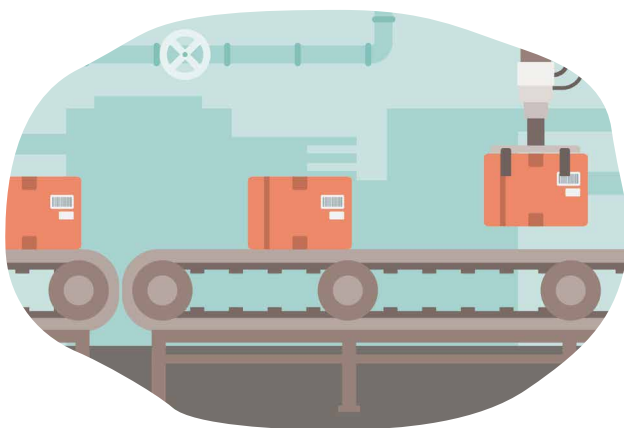
**Hydrolytically stable** – POKETONE™ is hydrolysis resistant. It hardly absorbs water and its technical properties remain at a high level.

**High wear resistance and very good tribological properties** – POKETONE™ has excellent wear resistance compared to other engineering polymers and reduces various noise problems.

**Exceptional barrier effect** – The gas and hydrocarbon barrier properties of POKETONE™ are outstanding and at the highest level compared to other polymeric materials.

**Very good chemical resistance** – POKETONE™ is highly resistant to "typical" automotive media, hydro-carbon solvents, salts and weak acids and alkalis.

**Easy to process** – POKETONE™ is characterised by short cycle times due to rapid crystallisation.



## Free from the following pollutants

- Formaldehyde
- Per- and polyfluorinated alkyl compounds (PFAS)
- Bisphenol A (BPA)
- And other harmful substances

## Has a low CO<sub>2</sub> footprint

- Global Warming Potential (GWP): 3.08 kg CO<sub>2</sub>/kg

## People. Think. Plastics.

We work with you to find the plastic solutions for your polyketone (PK) applications. Benefit from our technical application advice. We implement your requirements with the right material – including service and tailor-made logistics concepts.

## Industries

POKETONE™ is an exceptional product which is predestined for applications in the fields of electrics & electronics, consumer goods, healthcare, mechanical engineering, vehicle construction and e-mobility.



Grades	Properties	Melt-Flow-Index 240 °C/2.16 kg ASTM D1238, ISO 1133	Colour	FDA*	NSF51	NSF61	EU 10/2011	KTW	WRAS	Burning behaviour UL 94	UL Yellow card E163907
Poketone unreinforced											
M330F	High-flow injection moulding grade	60 g/10 min, 56 ml/10 min	natural	✓	✓	✓	✓	✓	✓	HB (0.8/1.5/3.0 mm ALL)	✓
M630F	Extrusion grade, injection moulding grade	6 g/10 min, 5.6 ml/10min	natural	✓	✓	✓	✓	✓	✓	HB (0.8/3.0 mm ALL)	✓
M630F-UV**	Injection moulding grade, UV-stabilised	6 g/10 min, 5.6 ml/10min	natural	✓						HB (0.8/1.5/3.0 mm ALL)	✓
M63VX0A	Extrusion grade, injection moulding grade, UV-stabilised	4 g/10 min	black								
M730F	Extrusion grade	3 g/10 min, 2.8 ml/10 min	natural	✓	✓	✓	✓	✓	✓	HB (0.8 mm)	
M710F	Extrusion grade, film extrusion	3 g/10 min, 2.8 ml/10 min	natural	✓			✓			HB (0.8 mm)	
Poketone reinforced											
M33FG3A	Injection moulding grade, 15 % glass fibre	24 g/10 min, 22 ml/10 min	natural	✓		✓			✓		
M33FG6A	Injection moulding grade, 30 % glass fibre	14 g/10 min, 13 ml/10 min	natural/black	✓		✓			✓	HB (0.8/1.5/3.0 mm ALL)	✓
M33FG6B	Injection moulding grade, 30 % glass fibre	14 g/10 min, 13 ml/10 min	natural	✓			✓			HB (0.8/1.5/3.0 mm ALL)	✓
Poketone flame-retardant											
M33AF2Y	High-flow injection moulding grade	34 g/10 min, 32 ml/10 min	natural/black	Contains no halogenated or red phosphorus-containing flame retardants and no PFAS						V-0 (0.8/1.6/3.0 mm ALL)	✓
M33AG2Y	Injection moulding grade, 5 % glass fibre	25 g/10 min, 23 ml/10 min	black							V-0 (0.8/1.6/3.0 mm ALL)	✓
M33AA2Y	Injection moulding grade, 30 % glass fibre	8 g/10 min, 5.4 ml/10 min	natural/black							V-0 (0.8/1.6/3.0 mm ALL)	✓
Poketone modified											
M33AS1A	Injection moulding grade modified with silocone	49 g/10 min, 46 ml/10 min	black	Anti-squeak and wear-resistant							

\*Infant formula and human milk are excluded. \*\*Old designation M630V

## Further products and information on request

For special colour requirements, we offer not only a comprehensive masterbatch colour rangebut also individual product ideas through out sister company AF-COLOR, branch of AKRO-PLASTIC GmbH. Would you like to get to know AF-COLOR and its expertise? Join the discussion!

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