

POKETONE™

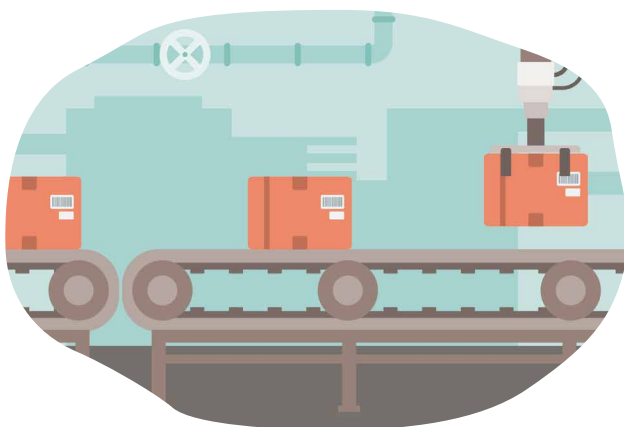
The all-rounder



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 CO₂ footprint

- Global Warming Potential (GWP): 3.08 kg CO₂/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 | | | | | | | | |
| M640A | Thermal resistant (high HDT) grade | 6 g/10 min, 5.6 ml/10 min | natural | | | | | | | | |
| 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 range but also individual product ideas through our 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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