

'2021

POKETONE™

TOP APPLICATIONS



POKETONE™
HYOSUNG POLYKETONE
www.poketone.com

POKETONE™ TOP APPLICATIONS '2021

#1 TOY Parts

-  **I**
Impact Resistance
-  **A**
Abrasion Resistance
-  **S**
Safety Non-Toxic
- H**
Heat Resistance
-  **C**
Chemical Resistance
- W**
Water Resistance
- B**
Barrier Property
-  **R**
Resilience Recovery

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#2 Gears

- ✓ **I**
Impact Resistance
- ✓ **A**
Abrasion Resistance
- S**
Safety Non-Toxic
- ✓ **H**
Heat Resistance
- ✓ **C**
Chemical Resistance
- W**
Water Resistance
- B**
Barrier Property
- ✓ **R**
Resilience Recovery

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#3

Gloves

Production Line Abrasion Parts



- I** Impact Resistance
- A** Abrasion Resistance
- S** Safety Non-Toxic
- H** Heat Resistance
- C** Chemical Resistance
- W** Water Resistance
- B** Barrier Property
- R** Resilience Recovery

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#4

Auto/E&E Connector



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#5
Food
Conveyor Belt
module

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#6

Water Purifier Fitting

I
Impact
Resistance

A
Abrasion
Resistance

✓ S
Safety
Non-Toxic

H
Heat
Resistance

✓ C
Chemical
Resistance

✓ W
Water
Resistance

B
Barrier
Property

✓ R
Resilience
Recovery

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#7

Industrial Roller Caster Wheel

 I Impact Resistance	 A Abrasion Resistance	S Safety Non-Toxic	H Heat Resistance
 C Chemical Resistance	W Water Resistance	B Barrier Property	 R Resilience Recovery

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#8

Cosmetic Packaging & Pump



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#9
Oil & Gas
Pipes

Pumping Components



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#10

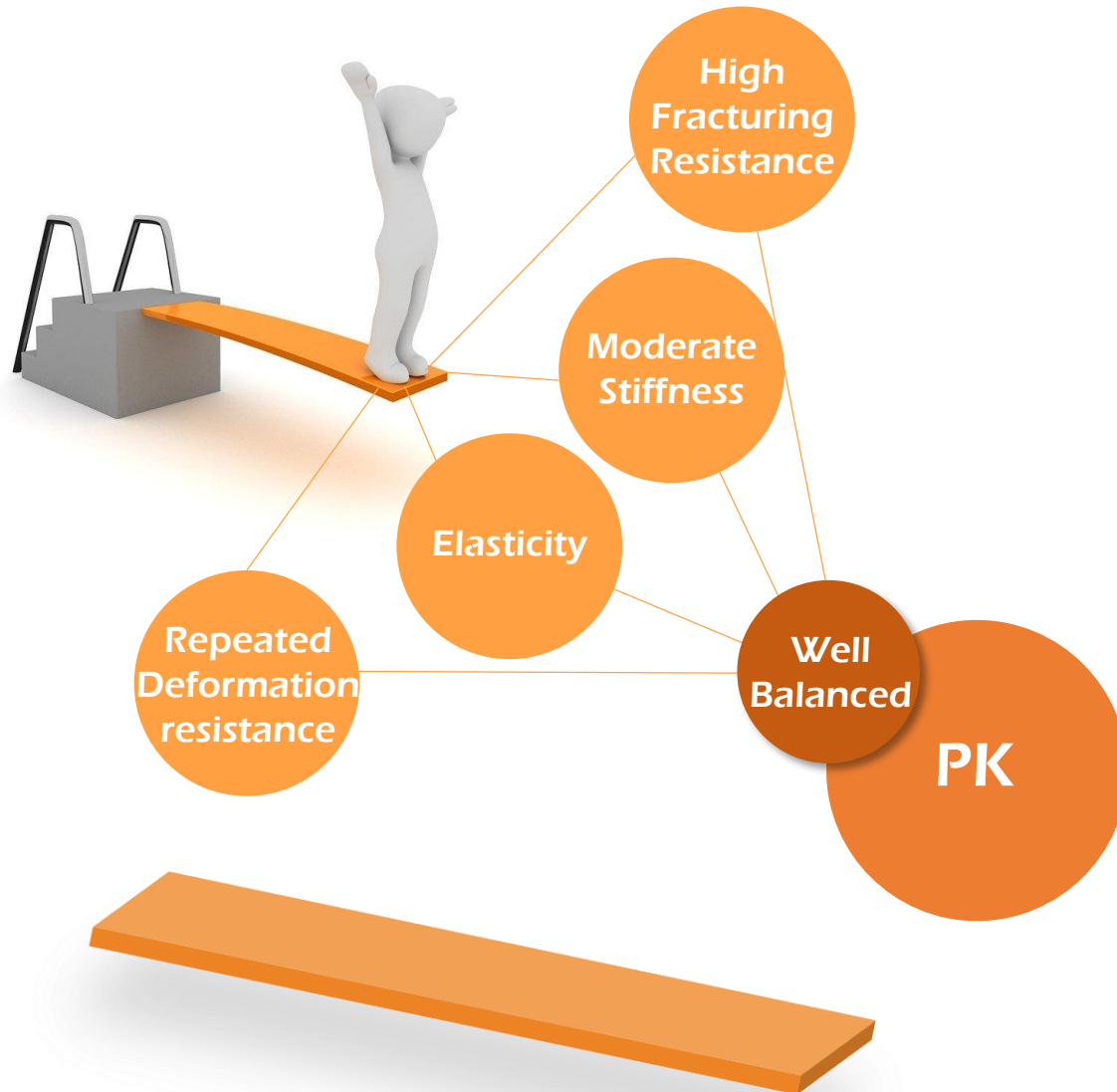
Sports Helmet Components

✓ I Impact Resistance	✓ A Abrasion Resistance	S Safety Non-Toxic	H Heat Resistance
C Chemical Resistance	✓ W Water Resistance	B Barrier Property	✓ R Resilience Recovery

More about POKETONE™

What is so special about PK?

Imagine jumping on the PK springboard.....



Mechanical Properties

PK polymers can be characterized as strong, tough, and ductile. Tensile yield stress is 60MPa. Stiffness is moderate, with tensile and flexural modulus of 1.5~1.7 Gpa. PK polymers also exhibit good retention of stiffness.

Superior Resilience and Snapability

Elongation at yield is very high(25%), and PK polymers can be subjected to much larger(repetitive) deformation than any other engineering plastics before permanent deformation occurs. PK polymers are also very resilient and well suited to snap-fit assemblies, allowing for relatively large design strain.

Very good Impact Performance

PK polymers' impact strength is unusually high and they exhibit a high level of ductility over a broad temperature range.

What is so special about PK?

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.



Very Good Hydrolysis Stability

PK polymers are not susceptible to hydrolysis. They exhibit resistance to hydrolysis in a broad range of aqueous environment and absorb small amounts of water, resulting in almost no effect on strength



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



What is so special about PK?

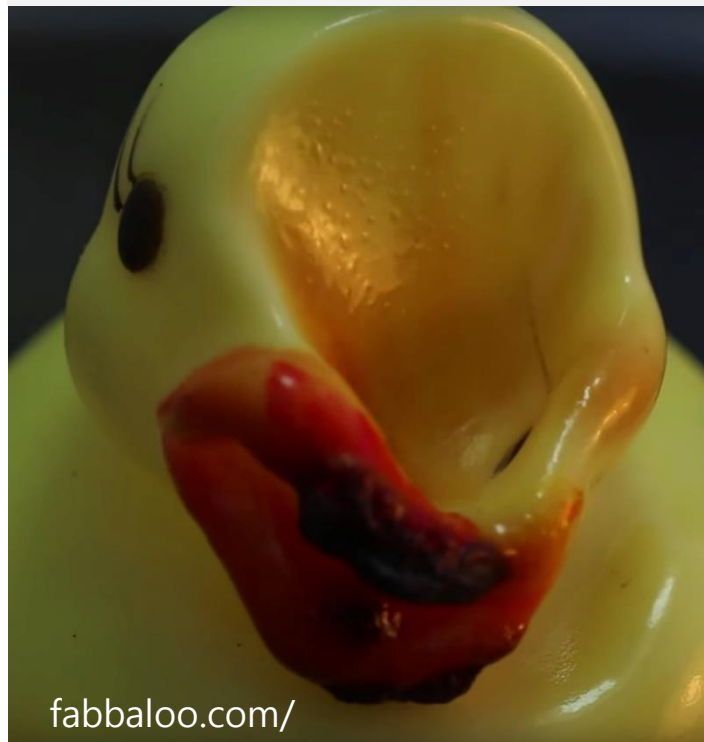
Good Barrier Performance

PK Polymers are resistance to a wide range of chemicals an exhibit good solvent and fuel barrier performance. This makes them attractive for use in pipe anc barrier packaging



Heat resistance

PK have better thermal properties than many of the leading plastics with higher melt point at max 220°C,) heat deflection temp. (210°C, at 0.46 Mpa). and VICAT softening point(195°C).



Non-toxic

For all the base grades, PK are filed with the FDA and used in the development of food contact and medical devices. They also safe with low to zero volatile organic compounds emission,.(VOCs)



PK vs Engineering Plastics

Density



Heat distortion resistance(HDT)



Tensile Strength(Yield)



Toughness



Elongation(Yield)



Hardness



Flexibility



Young's Modulus

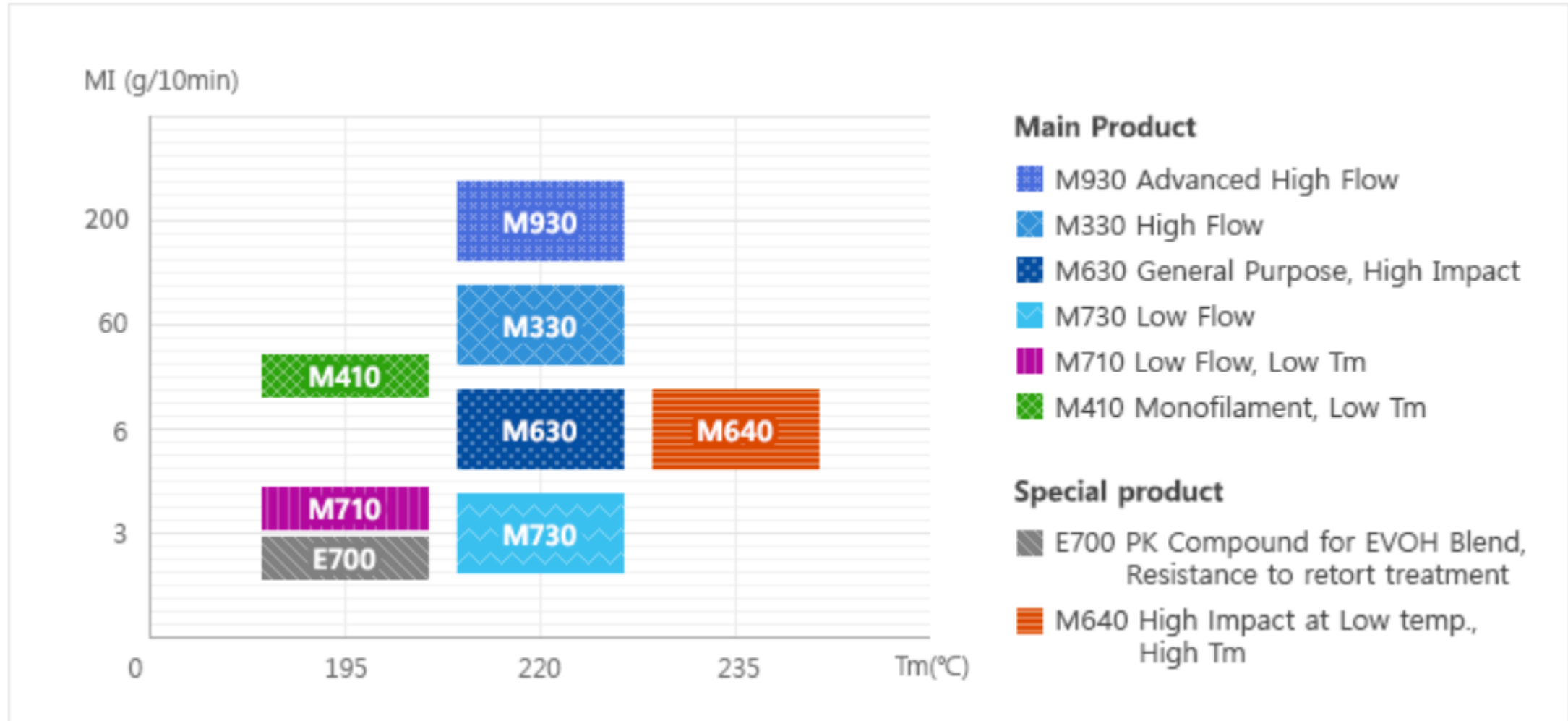


Safety & Certificate

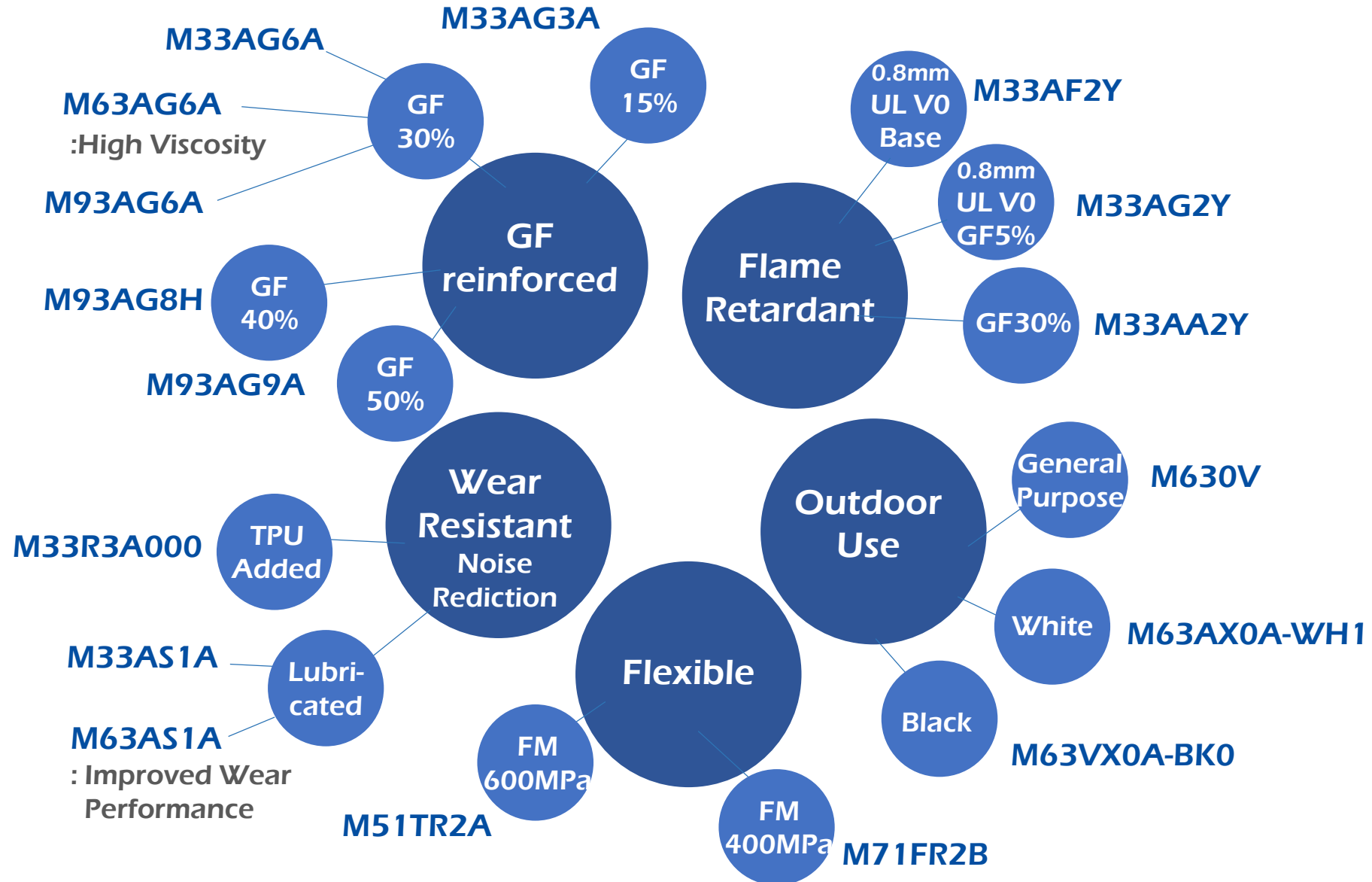
POKETONE polymers for food contact and medical applications are thoroughly tested for toxicity and biocompatibility. For all the base grades, POKETONE polymers are filed with the FDA and used in the development of food contact and medical devices



POKETONE material Selection(Base)



POKETONE material Selection(Compound)



Contact us

Need some help with **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
- Email: poketone@hyosung.com

