

POKETONE for Busbar

Global Warming Potential

* PA6	6.70	
* PA66	6.40	
* PC	3.40	
* POM	3.20	
* ABS	3.10	
** 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.



Non Toxic High Efficiency

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

POKETONE[™]
HYOSUNG POLYKETONE

POKETONE for Busbar

What is Busbar?

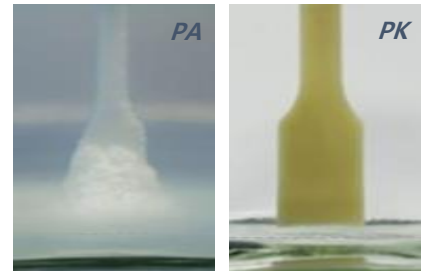


In electric power distribution, a busbar is a metallic strip or plastic bar, typically housed inside switchgear, panel boards, and busway enclosures for local high current power distribution. They are also used to connect high voltage equipment at electrical switchyards, and low voltage equipment in battery banks.

A busbar must be sufficiently rigid to support its own weight, and forces imposed by mechanical vibration, In addition, thermal expansion from temperature changes induced by ambient temperature variations, and magnetic forces induced by large currents, must be considered.

Flame & chemical resistance, good electrical properties, and low moisture absorption ensure that components made of POKETONE are suitable for busbar application.

※ Method : 38% H₂SO₄ (Battery acid)



Electrical properties

Properties	Unit	PK (V0)	PES (V0)	PA(V0)
HWI (Hot Wire Ignition) - 0.8mm (시편이 발화할 때까지 버티는 시간)	PLC* (Ignition Time)	1 (60~120 s)	1 (60~120 s)	3 (15~30 s)
HAI (High Current Arc Ignition) (시편이 발화할 때까지 Arc 횟수)	PLC (The number of Arc)	0 (120<)	4 (0~15)	0 (120<)
CTI (Comparative Tracking Index) (전해액 50방울 낙하 시 Short-cut 되는 전압)	PLC (Voltage)	0 (600V<)	4 (100~175V)	0 (600V<)
Dielectrical Strength (고전압에 대한 절연파괴 강도)	kV/mm	38	34	30
HVTR (High Voltage Arc Tracking Rate) (고압, 저전류 환경에서 시편 탄화 속도)	PLC (mm/min)	2 (25.4~80mm/min)	3 (80~150mm/min)	2 (25.4~80mm/min)

※ PLC: Performance Level Category (UL)

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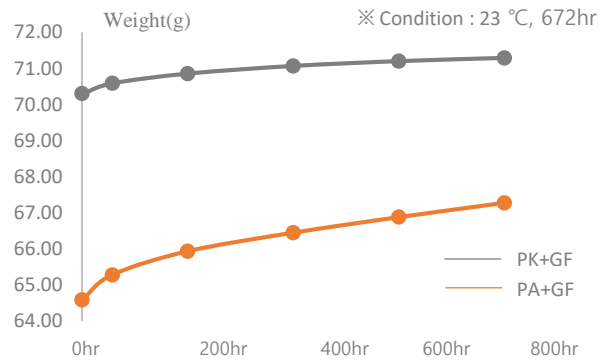
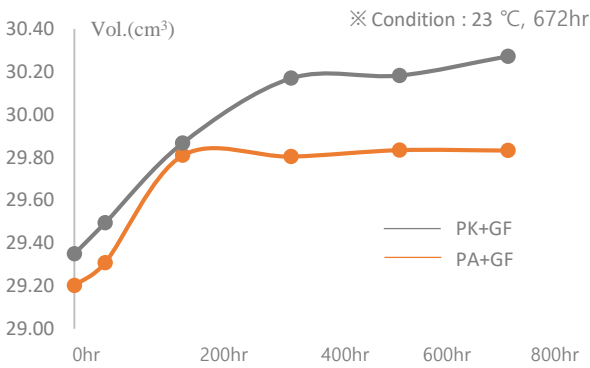
Dimensional stability under high humidity



POKETONE has hydrolysis resistance and low moisture absorption so Better dimensional stability compared to PA under high humidity condition.

Dimensional change after immersed in water

- Volume change : PK(2.16%), PA(3.14%)
- Weight change : PK(1.41%), PA(4.17%)



Grade Portfolio

Properties	Method	Unit	M33AF1Y	M33AF2Y	M33AG2Y	M33AA2Y	M93FA2Y	M93FB5Y	M93FA7Y
Flammability t=0.4mm t=0.8mm t=1.6mm	UL 94	Class	V0	V0	V0	V0	V0	V0	V0
			V0	V0	V0	V0	V0	V0	
			V0	V0	V0	V0	V0	V2	
Density	ASTM D792	g/cm ³	1.25	1.26	1.29	1.48	1.48	1.48	1.46
GF contents	-	%	-	-	5	30	30	30	30
Tensile Strength at Yield	ASTM D638	MPa	46	50	53	112	120	115	135
Elongation at Break	ASTM D638	%	35	40	18	4.3	3.5	3.5	3
Flexural Strength	ASTM D790	MPa	65	58	79	176	190	180	192
Flexural Modulus	ASTM D790	MPa	1,900	1,700	2,550	7,300	8,200	7,700	7,800
Notched Impact strength	ISO 79/1eA	kJ/m ²	4.5	8	6	10.3	9.3	9.5	12
Melting Temperature	ASTM D3418	°C	222	222	222	222	222	222	222
Melt Flow Index (240°C, 2.16kg)	ASTM D1238	g/10m in	35	34	25	8	40	33	40

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



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Further Information

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+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.