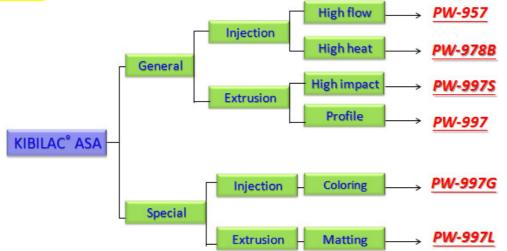


KIBILAC[®] ASA Resin General Grade ASA

ASA is a copolymerization of Styrene, Acrylonitrile, and Acrylic rubber. Technically, ASA not only maintained the main characteristics of the ABS, it also combines the weather resistance advantage of acrylic to extend the product application for outdoor purposes.

Following 30 years of experiences in manufacturing ABS, KIBILAC[®] ASA has inherited the good qualities and characteristics of CHIMEI's POLYLAC[®] ABS. The characteristics of weather resistance durability, color stability, and good PC/PVC capability have allowed KIBILAC[®] ASA to become a broader and higher value resin that can be applied in automotive parts, construction parts, outdoor sporting goods, gardening parts, outdoor antenna parts, electronic and electrical products, toiletries, etc.

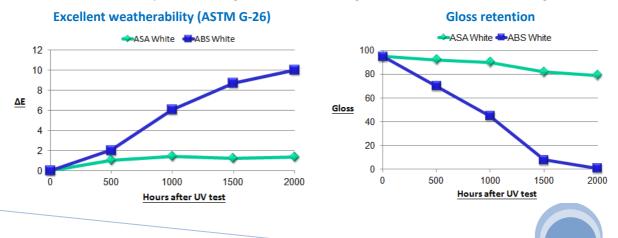
In addition, KIBILAC[®]ASA also reduces the secondary coating and electroplating processing costs, allowing its products to have cost reducing and environmental friendly features. Presently, general grade ASA product specifications are PW-957, PW-978B, PW-997 and PW-997S. Special grade ASA product specifications are PW-957G, PW-997G, PW-997L.



KIBILAC[®]ASA portfolio

General grade ASA features and benefits

-Excellent weatherability. Outstanding color fastness and gloss retention for exterior design.



Typical Properties	ISO	Condition	Units	General PW-957	High Heat PW-978B	Extrusion PW-997S	Profile Extrusion PW-997
MVI	1133	220°C×10KG	ml/10min	23.0	12.0	4.0	7.0
Mass Density	1183	23°C	g/cm ³	1.07	1.07	1.07	1.07
Tensile Strength	527	50mm/min, yield	MPa	46	47	47	46
		50mm/min,break	MPa	33	34	34	34
Tensile Elongation	527	50mm/min	%	20	20	20	25
Flexural Strength	178	2mm/min	MPa	67	67	65	66
Flexural Modulus	178	2mm/min	GPa	2.2	2.1	2.1	2.1
Izod Impact	180/1A	23°C, Notched	KJ/m ²	9.0	12.0	20.0	20.0
		-30°C , Notched	KJ/m ²	5.0	5.0	9.0	9.0
Charpy Impact	179	23℃, Notched	KJ/m ²	10.0	12.3	20.5	20.5
		-30°C, Notched	KJ/m ²	5.0	6.0	10.0	10.0
Vicat Softening Temperature	306	50°C /hr;1KG	Ĉ	105	112	105	106
		50°C /hr;5KG	ŗ	94	100	94	94
Heat Deflection	75/A	1.80Mpa;unannealed	ť	80	86	79	81
Temperature		1.80Mpa;annealed	Ĉ	97	105	96	98
Coefficient of Linear Thermal Expansion	11359	-	-	9x10 ⁻⁵	9.1x10 ⁻⁵	9.3x10 ⁻⁵	9.3x10 ⁻⁵
Flammability	-	UL-94	-	1.5mm HB	1.5mm HB	1.5mm HB	1.5mm HB
Mold Shrinkage	294-4	-	%	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7
Symbol	1043	-	-	>ASA<	>ASA<	>ASA<	>ASA<
Product Description				Injection	High Heat	Extrusion	Profile Extrusion

General grade ASA product properties

General grade ASA applications : automotive parts, construction parts, outdoor sporting goods, gardening parts, outdoor antenna parts ,electronic and electrical products,etc.



The above statement is based on our current level of knowledge and covers the above products directly manufactured and supplied by CHIMEI at the date of issue. CHIMEI makes no warranties, whether express or implied, and assumes no liability in connection with any use of above information. The manner in which you use and the purpose to which you put and utilize CHIMEI's products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is necessary that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. Notwithstanding the foregoing, CHIMEI shall in no event be held obligated or liable for any claims due to or arising from (i) any customer provided, consigned, materials and/or parts, which are incorporated or adopted in the products; (ii) any combination of the products with material not provided or authorized by our company; (iii) any modifications to the products which are made or directed by customer; (iv) our compliance with the specifications, instructions, and/or designs provided by customer; (v) any anti-trust, unfair competition and/or other unlawful actions effected by customer; or (vi) any defects, infrigment, breach and/or violation which are arising out of customer's faults or otherwise not solely and directly attributable to CHIMEI. In no event will CHIMEI be liable for any indirect, special, exemplary, punitive, or consequential damages (including lost profits) of any nature whatsoever whether arising out of the purchase, shipment, unloading, handling, or use of any product or otherwise.