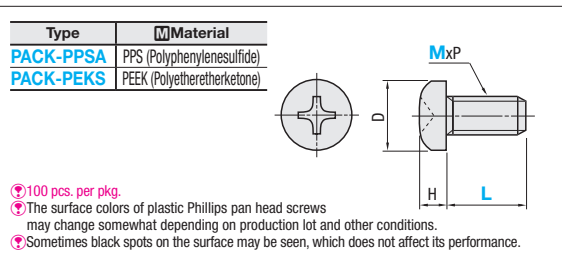
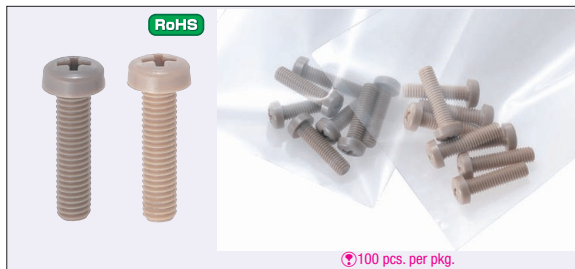


Plastic Phillips Pan Head Screws (Pkg.)

Material: PPS / PEEK



100 pcs. per pkg.
The surface colors of plastic Phillips pan head screws may change somewhat depending on production lot and other conditions.
Sometimes black spots on the surface may be seen, which does not affect its performance.

Part Number	Type	M-L	M x P	D	H	PACK-PPSA		PACK-PEKS	
						Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
PACK-PPSA PACK-PEKS	2.6-6	8	2.6	4.5	1.7	1-9	10 or More	1-9	10 or More
						10	0.45		
						12			
PACK-PPSA PACK-PEKS	3-6	10	3	5.5	2	1-9	10 or More	1-9	10 or More
						10	0.5		
						12			
						15			
						20			

Part Number	Type	M-L	M x P	D	H	PACK-PPSA		PACK-PEKS	
						Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
PACK-PPSA PACK-PEKS	4-6	8	4	7	2.6	1-9	10 or More	1-9	10 or More
						10	0.7		
						12			
						15			
PACK-PPSA PACK-PEKS	5-8	10	5	9	3.3	1-9	10 or More	1-9	10 or More
						10	0.8		
						12			
						15			

Part Number	Type	M-L	M x P	D	H	PACK-PPSA		PACK-PEKS	
						Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
PACK-PPSA PACK-PEKS	6-10	15	6	10.5	3.9	1-9	10 or More	1-9	10 or More
						10	1.0		
						20			

Ordering Example: **Part Number** PACK-PEKS4-20
100 pcs. per pkg.

Days to Ship: **Configure Online**

Mechanical Properties (Reference)

	Tensile Breaking Load N		Torsional Breaking Torque N·m	
	PACK-PPSA	PACK-PEKS	PACK-PPSA	PACK-PEKS
M2.6	440	312	0.19	0.16
M3	570	430	0.36	0.3
M4	980	765	0.71	0.64
M5	1570	1230	1.42	1.28
M6	2250	1670	2.11	2.26

Shown above are reference values and not guaranteed ones.
Recommended tightening torque is torsional breaking torque x50%.
Use a torque driver and torque wrench for tightening.
Mechanical characteristics change depending on the operating environment.
Testing the product before use under actual usage state is recommended.

Guideline for Selection of Plastic Screws by Material①

Item	RENY	PPS	PPS Non-Glass Fiber	PEEK
Lightness	△	△	○	○
Water Absorption Stability	○	○	○	△
Strength / Rigidity	○	○	○	○
Impact Resistance	○	○	○	○
Friction Resistance / Abrasion Resistance	○	○	○	○
Heat Resistance	△	○	○	○
Flame Resistance	△	○	○	○
Electrical Properties	○	○	○	○
Weather Resistance	○	○	○	○

○: Excellent ○: Good △: Questionable

Chemical Resistance Data (Reference)

Chemical Name	Temperature	RENY	PPS / PPS Non-Glass Fiber	PEEK
Hydrochloric Acid 10%	80°C	X	○	○
Hydrochloric Acid 10%	Ambient Temperature	X	○	○
Nitric Acid 10%	80°C	X	△	○
Nitric Acid 10%	Ambient Temperature	X	○	○
Sulfuric Acid 30%	80°C	X	○	○
Sulfuric Acid 10%	80°C	X	○	○
Sulfuric Acid 10%	Ambient Temperature	X	○	○
Sodium Hydroxide 30%	80°C	△	○	○
Sodium Hydroxide 10%	Ambient Temperature	△	○	○
Calcium Chloride (Saturation)	80°C	△	○	○
Acetone	Ambient Temperature	○	○	○
Methanol	60°C	○	○	○
Gasoline	Ambient Temperature	○	○	○
Light Oil	Ambient Temperature	○	○	○
Motor Oil	80°C	○	○	○
Gear Oil	100°C	○	○	○

○ Not Affected ○ Hardly Affected △ Somewhat Deteriorated
Chemical resistances vary depending on the condition of use. Be sure to test the product before use under expected application conditions.

RENY-Glassfiber Reinforced Polyamide MXD6
RENY is based on polyamide MXD6 and is also a crystalline engineered plastic reinforced with 50% glass fiber. It has the highest strength and elasticity among engineered plastics, and excels in both oil and heat resistance. Thus, it is used as an alternative to metal.

PPS-Polyphenylenesulfide
PPS is a crystalline super engineered plastic. It has excellent heat resistance, and does not deteriorate in physical properties even when it is used for long durations in high temperature atmosphere. In addition, it excels in chemical resistance, mechanical characteristics, electrical properties and dimensional stability.

PEEK-Polyetheretherketone
PEEK is semicrystalline super engineered plastic with the highest performance. It has the highest chemical resistance among all engineered plastics. The only generally used chemical that dissolves PEEK is concentrated sulfuric acid. PEEK also excels in heat resistance, abrasion resistance, flame resistance and hydrolysis resistance.

Guideline for Selection of Plastic Screws by Material②

Strength	RENY>PPS>PEEK>PPS Non-Glass Fiber
Heat Resistance	PPS / PPS Non-Glass Fiber>PEEK>RENY
Chemical Resistance	PEEK>PPS / PPS Non-Glass Fiber>RENY

RENY and PPS contains glass fiber.
Continuous Use Temperature: RENY: 105°C PPS / PPS Non-Glass Fiber: 200°C PEEK: 180°C, PPS Non-Glass Fiber: 200°C PEEK: 180°C Combustibility: RENY: UL94HB PPS, PPS Non-Glass Fiber, PEEK: UL94 V-0, PPS Non-Glass Fiber

Physical Properties Table (Reference)

Characteristics	Test Method	Unit	RENY	PPS	PPS Non-Glass Fiber	PEEK
Tensile Strength	D638	MPa	285	196	90	91
Elongation	D638	%	2.1	2.2	-	50-120
Bending Strength	D790	MPa	380	255	140	147
Flexural Modulus	D790	GPa	17.4	13.2	3.8	3.9
Izot Impact Strength (Notched)	D256	J/m	110	98	-	88
Rockwell Hardness	D785	R and M Scale	M111	M110	-	R126
Deflection Temperature under Load (1.82Mpa)	D648	°C	234	270	100	152
Linear Expansion Coefficient	D696	10 ⁻⁵ /K	1.5	1.0	-	5.0
Dielectric Constant (10 ⁴ Hz)	D150	-	4	4.6	3.6	3.3
Dielectric Tangent (10 ⁴ Hz)	D150	-	0.009	0.002	0.001	0.004
Volume Resistivity	D257	Ω·cm	1.0x10 ⁹	1.0x10 ¹⁶	2.0x10 ¹⁶	4.9x10 ¹⁶
Dielectric Breakdown Strength	D149	MV/mm	17	12	-	17
Arc Resistance	D495	sec	129	120	-	23
Specific Gravity	D792	-	1.65	1.66	1.35	1.3
Water Absorption (At 23°C in water x24h)	D570	%	0.14	0.015	0.02	0.500
Fiber Glass Content	-	%	50	40	-	-

Lifting Eyebolts / Thumb Screws (Plastic Head) / Plastic Hex Spacers

Both Ends Tapped

Lifting Eyebolts **RoHS**

CHIC SCHI (Stainless Steel)

A Type Vertical Lifting B Type 45° Lifting

CHIC Material: 1018 Carbon Steel SCHI Material: 304 Stainless Steel (Electrolytic Polishing)
S Surface Treatment: Trivalent Chromate Plating A Accessories: Nut 1 pc. (304 Stainless Steel)

Part Number	Type	M	MxP	a	b	C	D	H	l	e	g	R	da	Nuts		A Type N/1P(kgf/1P)	B Type N/2P(kgf/2P)	CHIC		SCHI															
														B	T			Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate														
CHIC SCHI	8	8	8x1.25	32.6	20	6.3	16	33.3	15	3	6	1	9.2	13	6.5	785 (80)	785 (80)	1-19 pcs(s)	20 pcs. or More	1-19 pcs(s)	20 pcs. or More														
																		10	10x1.5	41	25	8	20	41.5	18	4	7.7	1.2	11.2	17	8	1471(150)	1471(150)		
																		12	12x1.75	50	30	10	25	51	22	5	9.4	1.4	14.2	19	10	2157(220)	2157(220)		
																		16	16x2.0	60	35	12.5	30	60	27	5	13	1.6	18.2	24	13	4413(450)	4413(450)		
																		20	20x2.5	72	40	16	35	71	30	6	16.4	2	22.4	30	16	6178(630)	6178(630)		

Caution Bad Examples Avoid the applications shown below.

When using a pair of eye bolts for lifting, mount them in alignment as shown.

Ordering Example: **Part Number** CHIC12
Days to Ship: **Configure Online**

Thumb Screws (Plastic Head) **RoHS**

CRKW (White) CRKB (Black) CRKR (Red)

M Material: Knurled Head PC (Polycarbonate) Thread 302HQ Stainless Steel

Part Number	Unit Price	Volume Discount Rate
3-6	1-99 pc(s)	100 pcs. or More
8		
10		
12		
15		
20		
4-6		
8		
10		
12		
15		
20		

CRKW (White) CRKB (Black) CRKR (Red)

Ordering Example: **Part Number** CRKW3-6
Days to Ship: **Configure Online**

Usable as screws for cover attachment.

Plastic Hex Spacers **RoHS** **PEKP**

Cautions
The surface color may change depending on production lot and other conditions.
For material data, P211
The pilot hole for tapping goes through.
Material: PEEK (Polyetheretherketone)

Part Number	Type	B	L						M (Coarse)	(C)	Unit Price								
			15	20	25	30	50	100			150	200	L15	L20	L25	L30	L50	L100	L150
PEKP	6	6	15	20	25	30	50	100	150	3	6.9	-	-	-	-	-	-	-	-
			7	20	25	30	50	100	150	4	8.1	-	-	-	-	-	-	-	
			8	20	25	30	50	100	150	5	9.2	-	-	-	-	-	-	-	
			10	25	30	50	100	150	200	6	11.5	-	-	-	-	-	-	-	
			13	50	100	150	200	8	15.0	-	-	-	-	-	-	-	-	-	

Ordering Example: **Part Number** - L PEKP6 - 20
Days to Ship: **Configure Online**
Price: **Configure Online**

Alterations: **Part Number** - LC PEKP6 - LC35
Only applicable to PEKP.

Alteration	Code	Spec.	Price Adder
L Configurable	LC	Cuts L dimension in 1mm increment. The thread length does not change. (Ordering Code) LC55 LC Specification Range	
		B	LC
		6	15<L<50
		7	20<L<150
		8	20<L<150
		10	25<L<200
		13	35<L<200