

DIP-MOLDED PRODUCTS

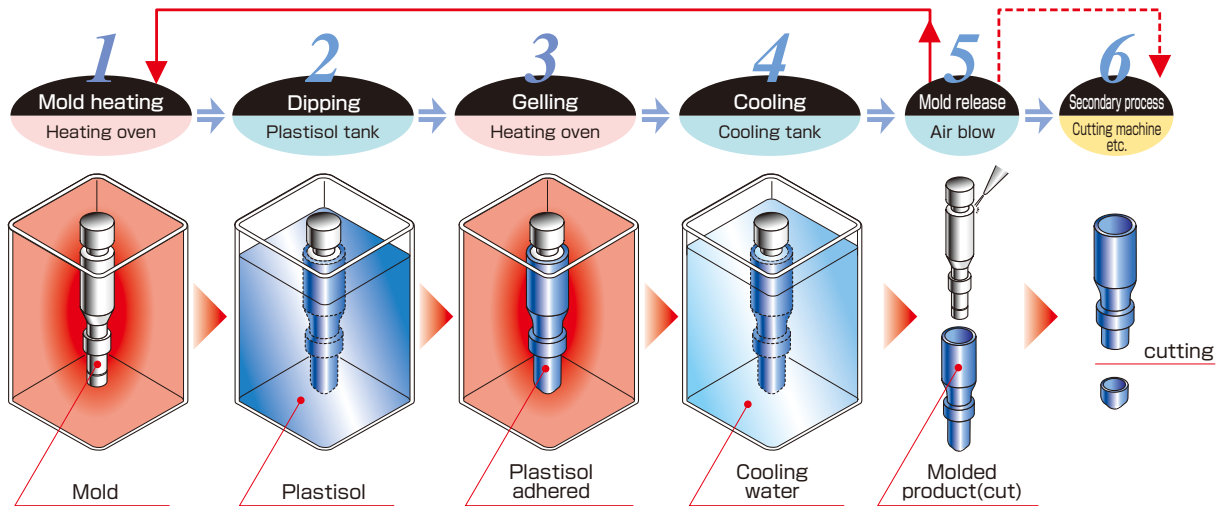
We manufacture various cap, cover etc through the dip-molded process with the material of soft PVC sol compound that we developed originally. The dip-molded product made of these material is excellent in insulation property and has been recognized by UL standard. Also, our dip-molded product are compliant with RoHS Directive (10 substances).

Features of dip-molded product

- Excellent electrical insulation and anti heat-aging resistance.
- Flexible to allow fitting to electronic components, terminals and wire.
- Since no pressure is used in manufacture, there is no internal distortion of dip-molded product and no heat-aging distortion.
- The metal molds are inexpensive and can quickly manufacture product.
- Excellent surface gloss, and has a wide color variations.

The Flow of Dip-Molding

- 1 Heat the mold (male) in an oven.
- 2 Immerse the heated mold into plastisol (paste form) and adhere to the mold surface.
- 3 Heat it again in the oven for gelling sol.
- 4 Together with the mold, cool in a cooling water tank.
- 5 Release it from the mold with air blow, then becomes a molded product.
- 6 Depending on the product, cut the tip with a cutting machine etc.



Recognition by industrial standards

● The Japan Electrical Appliance and Material Control Law	Registered 042GAC0435	Dip material SS107UFTT	Max. usable temp. 105°C
● Material recognized by Underwriters Laboratories (UL)	UL File No. E58538	Dip material SS107UFTT	
● Product recognized by Underwriters Laboratories (UL)	UL File No. E55167	Rating 105°C— 300V, 600V	
● Product recognized by CSA	CSA File No. LR52853 · LR52854	Rating 90°C— 300V, 600V 105°C— 300V, 600V	

Specifications of Dip Materials

Test item	Unit	Standard material	Materials recognized by UL		Test method
		General type	Heat-aging resistant and incombustible applications		
		SS108	SS107UFTT		
Specific gravity	—	1.2 ~ 1.3	1.2 ~ 1.3		JIS K7112
Hardness (A-type)	—	67 ± 3	77 ± 3		JIS K6301
Tensile strength	MPa	11.7 ~ 15.6	14.7 ~ 19.6		JIS K6723
Tensile strength after aging (100°C× 120 h)	MPa	13.7 ~ 19.6	14.7 ~ 19.6		
Elongation	%	300 ~ 400	300 ~ 400		
Elongation after aging (100°C× 120 h)	%	300 ~ 350	300 ~ 400		
Insulation	KV	5 ~ 8	7 ~ 10		JIS K6911
Insulation after aging (100°C× 120 h)	KV	5 ~ 8	7 ~ 10		(in air)
Volume resistivity	Ω · cm	10 ⁹ ~ 10 ¹⁰	10 ¹⁰ ~ 10 ¹¹		JIS K6723
Continuous use temperature	°C	60	85		IEC pub-216
Heat deformation temperature	°C	120	130		Loop test
Cold resistance (Tf)	°C	- 40	- 40		JIS K6723
Flammability	—	—	UL94V-0		UL94
Copper stability	—	Outstanding	Outstanding		UL224
Weatherproof qualities (excluding transparent product)	—	Very good	Very good		
Ozone resistance	—	Very good	Very good		
Chemical resistance	Acids	—	Outstanding		JIS K7114
	Alkalis	—	Outstanding		
Note Non-migration	—	Good	Good		

Note: Please conduct the test before use for anti-styrene.

- This data should only be used as a guide for general applications.
- Flame retardant dip material SS107UF (UL94V-0) is also available.
- No substances classified as ozone layer depleting substances (Classes I and II) under Article 611 of the U.S. Clean Air Act are used as the dip materials, or used in the manufacturing process or in the packaging of dip-molded product.

How to order dip-molded products.

● How to order dip-molded products.

1. Please indicate "-" (hyphen) + "color code" at the end of part number.
2. The color code varies depending on the products. Please refer to each product page for details.

Example: TCV - 52 - 04

Part No. (Hyphen) Color No.

● Color code

DIP-MOLDED MATERIAL	COLOR	RED	WHITE	BLUE	BLACK	YELLOW	GREEN	BROWN	GRAY	TRANSPARENT
General type SS108	Color Code	01	02	03	04	05	06	07	08	09
UL recognized Material (Colored transparency)SS107UFTT		21	22	23	24	25	26	27	28	—
UL recognized Material (Opacity)SS107UFTT		31	32	33	34	35	36	—	38	—
UL recognized Material (Colored transparency)SS107UF		—	—	—	—	45	—	—	—	—

3. Besides standard color, it will be made-to-order. Contact us for production volume.

Caution on the use of dip-molded product

- Shall be used under the continuous use temperature designated in the spec of dip materials chart. Recognized product to be used under rated temperature.
- Avoid the use under hi-humidity or water as it deteriorates the electric property.
- Avoid the use in mineral or vegetable oil as it deteriorates the mechanical property.
- Avoid the use in organic solvent as it softens the product and deteriorates the mechanical property.
- Shall be used after the test upon its use with the styrene contained product.
- Though transparent product possibly deteriorates its transparency after a while, it does not affect the function of the product.

※ Contact us for any queries.