BJB materials

SILICONE CASTING RUBBERS

By BJB Enterprises. Inc. An ISO-9001 Certified company

TC-5100 A/B 25 SHORE OO TRANSLUCENT SILICONE RUBBER

TC-5100 A/B is a room temperature, addition/platinum curing silicone rubber designed for making flexible parts. Featuring exceptional tear strength, low viscosity, 1:1 mix ratio, and a quick demold time, this system is user friendly while producing high quality finished products. This system is easily pigmented with silicone pigments. This product has been successfully tested for skin safety and cytotoxicity by an independent lab (results are available upon request). If a softer product is required, our SC-5002 can be added to this or any other silicones to increase elongation, reduce viscosity, and reduce hardness.

- High Tear Strength
- Translucent/Easily Pigmented
- Tested for Skin Safety

- Medical Simulations
- Props for Movie Special FX
- Tested for Cytotoxicity

PHYSICAL PROPERTIES	TEST METHOD	RESULTS	
Hardness, Shore OO	ASTM D 2240-04e1	25 ± 5	
Density (g/cc)	ASTM D 792-00	1.06	
Cubic Inches per Pound	N/A	26.17	
Color/Appearance	Visual	Colorless/Translucent	
Tensile Strength (psi)	ASTM D412-98a(2002)e1	250	
Tensile Modulus (psi)	ASTM D412-98a(2002)e1	45	
Elongation (%)	ASTM D412-98a(2002)e1	890	
Tear Strength (pli)	ASTM D 624-00e1 Die B	40	
Shrinkage (in/in) linear	ASTM D2566 @ 1" depth	Nil	
Dielectric Constant, 1 MHz	ASTM D150-87	2.926	
Dissipation Factor, 1 MHz	ASTM D150-87	0.0006	

*Note: Reported physical properties are based on test specimens cured 48 hours at room temperature.

HANDLING PROPERTIES	Part A	Part B	
Mix Ratio by weight	100	100	
Mix Ratio by volume	100	100	
Specific Gravity @ 77°F (25°C)	1.06	1.06	
Color	Colorless	Colorless	
Viscosity (cps) @ 77°F (25°C) Brookfield	3,540	3,510	
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	3,675		
Work Time, 100g mass @ 77°F (25°C)	40 – 50 minutes		
Gel Time	60 – 70 minutes		
Demold Time @ 77°F (25°C)	3 – 4 hours		

Properties above are typical and not for specifications.

INHIBITION:

Certain materials will cause inhibition or neutralization of the curing agent. These materials include condensation/tin cured based silicone, lacquer and enamel coatings, polyester-based products, copper or copper containing metals, some SLA 3D Printing resins, and natural rubbers like latex. Inhibition may easily be determined by brushing a small quantity of TC-5100 A/B over a localized area of the surface to be reproduced. If the TC-5100 A/B is tacky or uncured after the cure time, then you know the mold surface is acting as an inhibitor. To insure against possible problems, it is advisable to spray a barrier film over any questionable surfaces. This is the best way of treating clays and other surfaces that cause inhibition. Contact BJB for recommended products.

STORAGE:

Store ambient temperatures, 65-80°F (18-27°C). Unopened containers will have a shelf life of 6 months from date of shipment when properly stored at recommended temperatures. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING	Part A	Part B	Cubic Inches per Kit
Pint Kits	1 lb.	1 lb.	52
Quart Kits	2 lbs.	2 lbs.	105
Gallon Kits	8 lbs.	8 lbs.	419
5-Gallon Kits	40 lbs.	40 lbs.	2,094
55-Gallon Drum Kits	440 lbs.	440 lbs.	23,030

SAFETY PRECAUTIONS:

Use in a well-ventilated area. Avoid contact with skin using protective gloves and protective clothing. Repeated or prolonged contact on the skin may cause an allergic reaction. Eye protection is extremely important. Always use approved safety glasses or goggles when handling this product.

IF CONTACT OCCURS:

- **Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. It is *not* recommended to remove resin from skin with solvents. Solvents only increase contact and dry skin. Seek qualified medical attention if allergic reactions occur.
- Eyes: Immediately flush with water for at least 15 minutes. Call a physician.
- **Ingestion:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

NOTE:

Refer to the Safety Data Sheet before using this product. For processing tips and guides, please visit: <u>learn.bjbmaterials.com</u> to discover additional information.

TC-5100 A/B Page 2 of 2 For more information call BJB Enterprises, Inc. (714) 734-8450 Fax (714) 734-8929 Date: 08/10/2023