BJB Polyurethane TC-422 A/B-C Castable

Polyurethane Thermoset Elastomer

BJB Enterprises, Inc.

Message:

TC-422 A/B-C can be used for a great variety of applications. The standard uses for this product include the creation of soft, yet flexible and durable materials, for animated characters, costumes, prosthetics, movie props and test mannequins.
The TC-422 A/B-C product offers new dimensions in its ability to stretch and recover while maintaining high tear strength even in the soft to very soft hardness range. Additionally, advancements in lowering surface tack and cure time allow the user to achieve realism in skin-like quality in a remarkable time frame. This system provides further control by allowing you to select the desired levels of stretch, recovery and hardness by the amount of the "C" component used with the basic "A" and "B" mixture.

General Information			
Features	Good stretchability Good flexibility Good tear strength Soft		
Uses	artificial skin Repair Repair		
RoHS Compliance	RoHS compliance		
Appearance	Translucent Yellow		
Processing Method	Casting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
-- [1]	0.921	g/cm³	
-- [2]	1.02	g/cm³	
-- [3]	1.09	g/cm³	
--	1.05	g/cm³	ASTM D792
Shrinkage	0.20	%	ASTM D2566
Gel Time [4]	20.0 - 25.0	min	
Work Time [5] (25°C)	15.0 - 20.0	min	
Cure Time (25°C)	5.0 - 7.0	day	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shaw A [6]	10 - 20		ASTM D2240
Shaw OO [7]	25 - 35		ASTM D2240
Shaw OO [8]	65 - 75		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	0.186	MPa	ASTM D412

Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	3.90	MPa	ASTM D412
Tensile Elongation (Break)	1300	%	ASTM D412
Tear Strength [9]	10.7	kN/m	ASTM D624
Electrical	**Nominal Value**		**Test Method**
Dielectric Constant (1 MHz)	6.61		ASTM D150
Dissipation Factor (1 MHz)	0.051		ASTM D150
Thermoset	**Nominal Value**	**Unit**	**Test Method**
Thermoset Components			
Component a	Mixing ratio by weight: 50, mixing ratio by capacity: 47		
Component B	Mixing ratio by weight: 100, mixing ratio by capacity: 100		
Shelf Life	26	wk	
Thermoset Mix Viscosity			Brookfield
25°C [10]	170	cP	Brookfield
25°C [11]	15.0	cP	Brookfield
25°C [12]	1050	cP	Brookfield
25°C [13]	1240	cP	Brookfield
Demold Time (25°C)	480 - 720	min	
Additional Information	**Nominal Value**	**Unit**	**Test Method**

Note: Reported physical properties are based on test specimens cured at an elevated temperature, 160°F (71°C).In order to achieve maximum physical properties, a post cure with heat is required. BJB recommends 24 hours at ambient temperature, 77°F (25°C), followed by 16 hours at 130-160°F (54-71°C).

NOTE	
1.	Part C
2.	Part B
3.	Part A
4.	A + B (no "C")
5.	A + B (no "C")
6.	(A+B only)
7.	(A + B with 75% "C")
8.	(A+B only)
9.	C mould
10.	Part A
11.	Part C
12.	Mixed, A + B (no "C")
13.	Part B

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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