

LIM™ 6050

Silicone Rubber, LSR

Momentive Performance Materials Inc.

Message:

LIM6050 liquid silicone rubber is a 2-component product formulated for use in liquid injection molding to high performance elastomeric parts. It is clear, but easily pigmentable with Momentive masterbatch colors. The combination of excellent tear strength and very high tensile strength makes this product suitable for a wide variety of applications. Mechanical parts such as connector inserts, seals, flexible mounts, and valve parts can be made readily from LIM6050 liquid silicone rubber.

Key Features and Benefits

High clarity for excellent visibility

Excellent tear strength

Convenient 1:1 mix ratio for use with automatic equipment

Rapid cure time: 10 to 40 seconds depending upon part size, configuration, and molding temperature

Wide range of molding temperatures: 150C (302F) to 205C (400F)

Excellent release from metal molds

Potential Applications

sports goggles and masks

health care equipment

camera parts

coating metal rolls

General Information	
Features	Fast Cure
	Good Mold Release
	Good Tear Strength
	High Clarity
	High Tensile Strength
Uses	Camera Applications
	Coating Applications
	Connectors
	Medical/Healthcare Applications
	Seals
	Sporting Goods
	Valves/Valve Parts
Agency Ratings	BfR Food Contact, Unspecified Rating
	FDA 21 CFR 177.2600
	ISO 10993
	USP Class VI
UL File Number	E205753
Appearance	Clear/Transparent
Forms	Liquid
Processing Method	Liquid Injection Molding (LIM)

Elastomers	Nominal Value	Unit
Bayshore Resilience		
-- 1	58	%
-- 2	60	%
Flammability	Nominal Value	Test Method
Flame Rating	HB	UL 94
Thermoset	Nominal Value	Unit
Thermoset Components		
Part A	Mix Ratio by Weight: 1.0	
Part B	Mix Ratio by Weight: 1.0	
Uncured Properties	Nominal Value	Unit
Color		
-- 3	Clear/Transparent	
-- 4	Clear/Transparent	
Density		
-- 5	1.12	g/cm ³
-- 6	1.12	g/cm ³
Cured Properties	Nominal Value	Unit
Shore Hardness		
Shore A ⁷	50	
Shore A ⁸	53	
Tensile Modulus		
100% Secant ⁹	2.10	MPa
100% Secant ¹⁰	2.20	MPa
Tensile Strength		
-- 11	8.60	MPa
-- 12	9.00	MPa
Tensile Elongation at Break		
-- 13	530	%
-- 14	580	%
Compression Set		
177°C, 22.0 hr ¹⁵	25	%
177°C, 22.0 hr ¹⁶	35	%
Tear Strength		
-- 17	43.9	kN/m
-- 18	43.9	kN/m
Electric Strength ¹⁹	20	kV/mm
Relative Permittivity ²⁰ (1 kHz)	3.12	
Volume Resistivity ²¹	6.1E+14	ohms·cm
Dissipation Factor ²² (1 kHz)	1.0E-4	
NOTE		
1.	Postbaked 1 hr @ 204°C (400°F)	

2.	As Molded 30 sec @ 177°C (350°F)
3.	Part B
4.	Part A
5.	Part B
6.	Part A
7.	As Molded 30 sec @ 177°C (350°F)
8.	Postbaked 1 hr @ 204°C (400°F)
9.	As Molded 30 sec @ 177°C (350°F)
10.	Postbaked 1 hr @ 204°C (400°F)
11.	As Molded 30 sec @ 177°C (350°F)
12.	Postbaked 1 hr @ 204°C (400°F)
13.	Postbaked 1 hr @ 204°C (400°F)
14.	As Molded 30 sec @ 177°C (350°F)
15.	Postbaked 1 hr @ 204°C (400°F)
16.	As Molded 30 sec @ 177°C (350°F)
17.	Postbaked 1 hr @ 204°C (400°F)
18.	As Molded 30 sec @ 177°C (350°F)
19.	As Molded 30 sec @ 177°C (350°F)
20.	As Molded 30 sec @ 177°C (350°F)
21.	As Molded 30 sec @ 177°C (350°F)
22.	As Molded 30 sec @ 177°C (350°F)

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