# LIM™ 6040-D2

### Silicone Rubber, LSR

#### Momentive Performance Materials Inc.

#### Message:

LIM6040-D2 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 LIM6040-D2 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: 150°C (302°F) to 205°C (400°F)
Excellent release from metal molds
The combination of excellent clarity, tear strength and very high tensile strength makes this product suitable for a wide variety of applications.
Baby bottle nipples
Connector inserts
Seals
Flexible mounts
Valves
Sports goggles
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	54	%	
2	58	%	
Flammability	Nominal Value	70	Test Method
Flame Rating	НВ		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			
<sup>5</sup>	1.12	g/cm³	
6	1.12	g/cm <sup>3</sup>	
	1.12	g, em	
Cured Properties	Nominal Value	Unit	
Cured Properties	Nominal Value	Unit	
Shore Hardness		Unit	
Shore Hardness Shore A <sup>7</sup>	40	Unit	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup>		Unit	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus	40 42		
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup>	40 42 1.06	MPa	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup>	40 42		
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength	40 42 1.06 1.50	MPa MPa	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength	40 42 1.06 1.50 8.30	MPa MPa MPa	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup>	40 42 1.06 1.50	MPa MPa	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break	40 42 1.06 1.50 8.30 9.70	MPa MPa MPa MPa MPa	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup>	40 42 1.06 1.50 8.30 9.70 600	MPa MPa MPa MPa %	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup> <sup>14</sup>	40 42 1.06 1.50 8.30 9.70	MPa MPa MPa MPa MPa	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup> <sup>14</sup> Compression Set	40 42 1.06 1.50 8.30 9.70 600 650	MPa MPa MPa MPa % %	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup> <sup>14</sup> Compression Set 177°C, 22.0 hr <sup>15</sup>	40 42 1.06 1.50 8.30 9.70 600 650 25	MPa MPa MPa MPa % %	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup> <sup>14</sup> Compression Set 177°C, 22.0 hr <sup>15</sup> 177°C, 22.0 hr <sup>16</sup>	40 42 1.06 1.50 8.30 9.70 600 650	MPa MPa MPa MPa % %	
Shore Hardness Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus 100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup> <sup>14</sup> Compression Set 177°C, 22.0 hr <sup>15</sup> 177°C, 22.0 hr <sup>16</sup> Tear Strength	40 42 1.06 1.50 8.30 9.70 600 650 650 25 40	MPa MPa MPa MPa % % % %	
Shore HardnessShore A $^7$ Shore A $^8$ Tensile Modulus100% Secant $^9$ 100% Secant $^{10}$ Tensile Strength $^{11}$ $^{12}$ Tensile Elongation at Break $^{13}$ $^{14}$ Compression Set177°C, 22.0 hr $^{15}$ 177°C, 22.0 hr $^{16}$ Tear Strength $^{17}$	40 42 1.06 1.50 8.30 9.70 600 650 650 25 40 40.4	MPa MPa MPa MPa MPa % % % % % %	
Shore Hardness         Shore A <sup>7</sup> Shore A <sup>8</sup> Tensile Modulus         100% Secant <sup>9</sup> 100% Secant <sup>10</sup> Tensile Strength <sup>11</sup> <sup>12</sup> Tensile Elongation at Break <sup>13</sup> <sup>14</sup> Compression Set         177°C, 22.0 hr <sup>15</sup> 177°C, 22.0 hr <sup>16</sup> Tear Strength <sup>17</sup> <sup>18</sup>	40 42 1.06 1.50 8.30 9.70 600 650 650 25 40 40.4 40.4	MPa MPa MPa MPa MPa % % % % % % % % % % % % % % % % % % %	
Shore HardnessShore A $^7$ Shore A $^8$ Tensile Modulus100% Secant $^9$ 100% Secant $^{10}$ Tensile Strength $^{11}$ $^{12}$ Tensile Elongation at Break $^{13}$ $^{14}$ Compression Set177°C, 22.0 hr $^{15}$ 177°C, 22.0 hr $^{16}$ Tear Strength $^{17}$	40 42 1.06 1.50 8.30 9.70 600 650 650 25 40 40.4	MPa MPa MPa MPa MPa % % % % % %	

Volume Resistivity <sup>21</sup>	6.4E+14	ohms·cm	
Dissipation Factor <sup>22</sup> (1 kHz)	1.0E-4		
NOTE			
1.	Postbaked 1 hr @ 2	04°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 @ 2	04°C (400°F)	
9.	As Molded 30 sec @	⊉ 177°C (350°F)	
10.	Postbaked 1 hr @ 2	04°C (400°F)	
11.	As Molded 30 sec @	፬ 177°C (350°F)	
12.	Postbaked 1 hr @ 2	04°C (400°F)	
13.	Postbaked 1 hr @ 2	04°C (400°F)	
14.	As Molded 30 sec @	⊉ 177°C (350°F)	
15.	Postbaked 1 hr @ 2	04°C (400°F)	
16.	As Molded 30 sec @	፬ 177°C (350°F)	
17.	Postbaked 1 hr @ 2	04°C (400°F)	
18.	As Molded 30 sec @	⊉ 177°C (350°F)	
19.	As Molded 30 sec @	፬ 177°C (350°F)	
20.	As Molded 30 sec @	፬ 177°C (350°F)	
21.	As Molded 30 sec @	፬ 177°C (350°F)	
22.	As Molded 30 sec @	፬ 177°C (350°F)	

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