

# PRODUCT BROCHURE

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DONGJUE SILICONE GROUP CO.,LTD





# ENTERPRISE Qualification

















**Dongjue Silicone Group Co., Ltd. ("DJS")**, with a registered capital of HKD 100 million, is a holding company specialized in investment in the silicone industry that was incorporated by Hong Kong New Energy Chemicals Group Company Limited ("NECG") in 2001 in Hong Kong. NECG has been involved in research, production and sales in the silicone industry as early as the beginning of 1990s.

DJS invested and founded Dongjue Silicone (Nanjing) Co., Ltd. ("Nanjing Dongjue") and Nanjing Dongjue Investment Co., Ltd. ("Dongjue Investment") in Nanjing, Jiangsu Province; invested and founded Dongguan Dongjue Trading Co., Ltd. ("Dongguan Dongjue") in Dongguan, Guangdong Province; and invested and founded Anhui Dongjue Silicone Co., Ltd. ("Anhui Dongjue") in Ma'anshan, Anhui Province.

Nanjing Dongjue, founded in 1996, is one of the largest professional manufacturers of silicone rubber in mainland China, with a registered capital of USD 32.46 million, a total land area of 342,000 square meters and a gross floor area of around 84,000 square meters, which includes various office buildings, factories and large warehouses. Nanjing Dongjue boasts a team of experts and senior technicians with years of research experience in fields related to silicone rubber and silicone rubber products. The company's main production equipment and techniques are among leaders within the domestic industry. Now Nanjing Dongjue has formed a relatively comprehensive product chain extending from silicone gum, silicone rubber compound, insulating silicone rubber, fumed silicone rubber to silicone rubber products. Nanjing Dongjue has an annual production capacity of 150,000 tons of silicone rubber, 18 series of products. All kinds of products comply with EU REACH regulations and EU ROSH directive, some products have been certified by UL and some have passed FDA and LFGB test standards.

**Dongjue Investment**, founded in 2010, with a registered capital of RMB 70 million, is mainly specialized in investment and trading in the silicone industry.

Dongguan Dongjue, founded in 2010, with a registered capital of RMB 1 million, is specialized in sales and technical support of silicone products.

Anhui Dongjue, founded in 2018, with a registered capital of RMB 250 million, covers an area of 159,000 square meters, with a building area of 43,000 square meters. After 2021, Anhui Dongjue will launch its capacity step by step and will eventually form a capacity of 190,000t silicone gum and 100,000t silicone rubber compounds. Anhui Dongjue will provide more diversified, efficient and better services for domestic customers.

DJS posted its revenue equivalent to RMB 1.6 billion in 2019 by selling silicone rubber and silicone rubber products. DJS has been leading the silicone rubber market of mainland China for many years. Meanwhile, DJS sells its products abroad to over 30 countries and regions across Asia, Europe, Africa and North America, accounting for more than 12% of the Group's total sales volume.

# 101 METHYL SILICONE GUM

### Technical indexes





Item	Product Data
Appearance	Colorless, transparent, no extraneous matter.
Molecular weight, 10 <sup>4</sup>	50 ~ 100
Volatile content,150°C*3h, % ≤	2.0

### Main Applications

This product is a kind of high-mole-mass linear polydimethylsiloxane, applicable to production of the products such as the base rubber of silicone masterbatch and the colloidal vulcanizator, and can be used together with methyl vinyl silicone gum to make high-tear-strength silicone rubber, low-hardness silicone rubber and sponge silicone rubber.

# 110 METHYL VINYL SILICONE GUM

#### Technical indexes



110 Methyl-terminated gum									
Itom		Product Data							
Item	110-8	110-8 110-1 110-2 110-3 110-4 110-5 110-6 1							
Appearance			Colorless, t	ransparent,	no extrane	ous matter.			
Molecular weight, 10⁴			40 ~ 80				40 ~ 70		
Vinyl content, %	$0.03 \sim 0.06$	0.03~0.06   0.07~0.12   0.13~0.20   0.21~0.24   0.25~0.49   0.50~0.79   0.80~1.79   1.80~							
Volatile content, 150°C*3h, % ≤		2.0							

110 Vinyl-terminated gum									
la ma		Product Data							
Item	110-85	110-15	110-25	110-35	110-45	110-55	110-65	110-75	
Appearance			Colorless, t	ransparent,	no extrane	ous matter.			
Molecular weight, 10⁴			40 ~ 80				40 ~ 70		
Vinyl content, %	$0.03 \sim 0.06$	0.03~0.06   0.07~0.12   0.13~0.20   0.21~0.24   0.25~0.49   0.50~0.79   0.80~1.79   1.80~							
Volatile content, 150°C*3h, % ≤				2.	.0				

#### Main Applications

110 Methyl Vinyl Silicone gum is a high molecular polysiloxane compound synthesized with high-quality siloxane and vinyl. This series can be divided into two major categories: methyl-terminated and vinyl-terminated. Those with an "S" in the model number are vinyl-terminated methyl vinyl silicone gum, and the others are methyl-terminated methyl vinyl silicone gum. The 110 series of silicone gum are elastomers formed at high temperature after reinforcing agent (silicon dioxide) and additive are added and can be used to manufacture various silicone rubber compound products such as silicone rubber for molding, silicone rubber for extrusion, electrical insulating silicone rubber and flame retardant silicone rubber and further manufacture various silicone rubber products.

# STANDARD SILICONE RUBBER FOR MOLDING



#### Characteristics

- Compliance with FDA Good processability and comprehensive physical properties
- Excellent yellowing resistance Excellent heat resistance at temperature of -50°C to 200°C

### Main Applications

- Various keypads for electronic & electric appliances
   Eelectrical insulation components, automotive accessories
- Industrial & civil seal rings, miscellaneous parts
- General industrial & civil silicone rubber products, and translucent articles

Duamantias			F	Product Data	Э			Took Markhad
Properties	NE-131	NE-141	NE-151	NE-161	NE-171	NE-181	NE-191	Test Method
Appearance		Milk-white, translucent, no obvious extraneous matter.						Visual Inspection
Density, g/cm³	1.07~1.11	1.10~1.14	1.13~1.17	1.16~1.20	1.19~1.23	1.20~1.24	1.22~1.26	ASTM D792
Hardness, Shore A	30±2	40±2	50±2	60±2	70±2	80±2	86±2	ASTM D2240
Tensile Strength, MPa≥	6.0	6.5	8	.0	7.5	7.0	4.5	
Elongation at Break, %≥	600	420	350	300	220	180	80	ASTM D412
Tension Set, % ≤	6	5		7	6	5	6	
Tear Strength, Die C kN/≥	15	19	22		20 18		10	ASTM D624
Compression Set, 180°C*22h ≤	45	35	30		:		25	ASTM D395
Rebound Resilience, % ≥	6	0	55	50	45 40			/

- Physical data in the above table is for reference only. Curing condition: 175°C\* 5Min.
- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane:0.65%.
- Milk-white translucent or pigmented and sliced silicone rubber can be provided by customers' request.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.

# STANDARD SILICONE RUBBER FOR EXTRUSION



### Characteristics

- Compliance with FDA Good processability and comprehensive physical properties
- Excellent yellowing resistance Excellent heat resistance at temperature of -50°C to 200°C

### Main Applications

- All kinds of silicone rubber hoses, catheter, special-shaped rubber strips
- Foam rubber strips, general industrial and civil silicone rubber products and translucent products

Duomoution		Produ	ct Data		Tost Mathad	
Properties	NE-251	NE-261	NE-271	NE-281	Test Method	
Appearance	Milk-wl	hite, translucent,no	obvious extraneous	matter.	Visual Inspection	
Density, g/cm³	1.13~1.17	1.16~1.20	1.19~1.23	1.20~1.24	ASTM D792	
Hardness, Shore A	50±2	60±2	70±2	80±2	ASTM D2240	
Tensile Strength, MPa ≥		7.5		7.0		
Elongation at Break, % ≥	400	320	250	160	ASTM D412	
Tension Set, % ≤		9		8		
Tear Strength, Die C kN/m≥	20	22	2	ASTM D624		
Compression Set, 180°C*22h ≤		30		25	ASTM D395	
Rebound Resilience, % ≥	5	60	4	/		
Volume resistivity, $\Omega$ .cm $\geq$		IEC 60093				
Dielectric strength, kV/mm≥		2	0		IEC 60243	

- Physical data in the above table is for reference only. Curing condition: 175°C\*5Min.
- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane: 0.65%.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.

# GENERAL SILICONE RUBBER FOR MOLDING



### Characteristics

- Compliance with FDA Superior physical, mechanical and electrical properties
- Excellent ageing resistance at temperature of -50°C to 200°C

### Main Applications

- Various keypads, general industrial & civil silicone rubber products, sealing elements and miscellaneous parts
- General electric components

Droportios			F	Product Data	Э			Test Method
Properties	NE-130	NE-140	NE-150	NE-160	NE-170	NE-180	NE-190	rest Method
Appearance		Milk-white, subtranslucent, no obvious extraneous matter.						Visual Inspection
Density, g/cm³	1.07~1.11	1.10~1.14	1.13~1.17	1.16~1.20	1.19~1.23	1.20~1.24	1.22~1.26	ASTM D792
Hardness, Shore A	30±2	40±2	50±2	60±2	70±2	80±2	86±2	ASTM D2240
Tensile Strength, MPa≥	6.0	6.5	8	.0	7.5	7.0	4.5	
Elongation at Break, %≥	600	420	350	300	220	160	80	ASTM D412
Tension Set, % ≤	6	5		7	6	5	6	
Tear Strength, Die C kN/m≥	15	19	2	2	20	18	10	ASTM D624
Compression Set, 180°C*22h ≤	45	35		3	30 2		25	ASTM D395
Resilience, %≥		60		50	45		40	/
First-order linear shrinkage, %	3.4~3.9	3.3~3.8	3.2~3.7	3.1~3.6	3.0~3.5	2.9~3.4	2.9~3.3	1

- Physical data in the above table is for reference only. 
   Curing condition: 175°C\*5Min.
- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane: 0.65%.
- Milk-white subtranslucent or pigmented and sliced silicone rubber can be provided by customers' request.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.

# GENERAL SILICONE RUBBER FOR EXTRUSION



### Characteristics

- Compliance with FDA Superior physical, mechanical and electrical properties
- Excellent ageing resistance at temperature of -50℃ to 200℃

### Main Applications

• Various silicone rubber tubes, shaped rubber strips and foam rubber strips, etc

Dona anti-a			Product Data			To at Month and
Properties	NE-240	NE-250	NE-260	NE-270	NE-280	Test Method
Appearance	Milk-	white, subtransl	ucent ,no obvio	us extraneous m	atter.	Visual Inspection
Density, g/cm³	1.10~1.14	1.13~1.17	1.16~1.20	1.19~1.23	1.20~1.24	ASTM D792
Hardness, Shore A	40±2	50±2	60±2	70±2	80±2	ASTMD2240
Tensile Strength, MPa	7.0	8.0	7.5	7.	.0	
Elongation at Break, %	420	400	320	250	150	ASTM D412
Tension Set, %≤		ġ	)		8	
Tear Strength, Die C kN/m≥	19	20	22	2	0	ASTM D624
Compression Set, 180°C*22h ≤	35		30		25	ASTM D395
Resilience, % ≥	60	50 45			5	1
Volume Resistivity, $\Omega \cdot cm$			IEC 60093			
Dielectric Strength, kV/mm			20			IEC 60243

- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane: 0.65%.
- Milk-white subtranslucent or pigmented and sliced silicone rubber can be provided by customers' request.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.

# COMMON SILICONE RUBBER FOR MOLDING



### Characteristics

- Compliance with FDA
   Good physical and mechanical properties
- Good processsability

### Main Applications

• Keypads, sealing rings and sealing gaskets

Dranartias		Product Data							Test Method
Properties	NE-7125	NE-7130	NE-7130 NE-7140 NE-7150 NE-7160 NE-7170 NE				NE-7180	NE-7190	rest Method
Appearance		Milk-whit	e, subtran	slucent,no	obvious	extraneou	s matter.		Visual Inspection
Density, g/cm³	1.05~1.10	1.07~1.11	1.10~1.14	1.13~1.17	1.16~1.20	1.19~1.23	1.20~1.24	1.21~1.25	ASTM D792
Hardness, Shore A	25±2	30±2	40±2	50±2	60±2	70±2	80±2	86±2	ASTM D2240
Tensile Strength, MPa≥	3.5	6.0	6.5	7.	5 7.0		4.0		
Elongation at Break,%≥	700	500	420	320	280	200	150	80	ASTM D412
Tension Set, % ≤	8	7	7	3	3	7	6	5	
Tear Strength, Die C kN/m≥	10	15	16	1	8	17	16	10	ASTM D624
Compression Set, 180°C*22h ≤	1	50	30					ASTM D395	
Resilience, % ≥	1		60		50	4	5	40	1
First-order linear shrinkage, %	3.6 ~ 4.2	3.4 ~ 3.9	3.3 ~ 3.8	3.2 ~ 3.7	3.1 ~ 3.6	2.9 ~ 3.5	2.8 ~ 3.4	2.7 ~ 3.4	/

- Physical data in the above table is for reference only. Curing condition: 175°C\* 5Min.
- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di (tert- butylperoxy) hexane: 0.65%.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.

# COMMON SILICONE RUBBER FOR EXTRUSION





### Characteristics

- Compliance with FDA Good physical and mechanical properties Good processsability
- Main Applications
- Common silicone rubber tubes, shaped strips and foam strips, etc

Dunantias			Product Data			To at Math a d
Properties	NE-7240	NE-7250	NE-7260	NE-7270	NE-7280	Test Method
Appearance	Mill	k-white, light ye	llow,no obvious	extraneous ma	tter.	Visual Inspection
Density, g/cm³	1.10~1.14	1.13~1.17	1.16~1.20	1.19~1.23	1.20~1.24	ASTM D792
Hardness, Shore A	40±2	50±2	60±2	70±2	80±2	ASTM D2240
Tensile Strength, MPa≥	6.5	7.	5	7.0	6.5	
Elongation at Break,% ≥	450	400	320	250	150	ASTM D412
Tension Set, % ≤		1	0		8	
Tear Strength, Die C kN/m ≥	16	18	2	0	18	ASTM D624
Compression Set, 180°C*22h ≤	40		35		30	ASTM D395
Resilience, % ≥	60	50			5	1
Volume Resistivity, $\Omega$ . cm $\geq$				IEC 60093		
Dielectric Strength , kV/mm $\geq$			18			IEC 60243

- Physical data in the above table is for reference only.
- Curing condition: 175°C\* 5Min.
- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di(tert-butylperoxy) hexane: 0.65%.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.

# COMMON SILICONE RUBBER FOR MOLDING & EXTRUSION





#### Characteristics

- Compliance with FDA Good physical and mechanical properties
- Good processsability

#### Main Applications

• Keypads, sealing rings, sealing gaskets Common silicone rubber tubes, shaped strips and foam strips, etc

Duomontos			Produ	Product Data						
Property	NE-7330	NE-7330 NE-7340 NE-7350 NE-7360 NE-7370					Test Method			
Appearance		Translucent, no obvious extraneous matter								
Density, g/cm <sup>3</sup>	1.06~1.10	1.10~1.15	1.13~1.18	1.15~1.20	1.18~1.23	1.20~1.25	ASTM D792			
Hardness, ShoreA	30±2	40±2	50±2	60±2	70±2	80±2	ASTM D2240			
Tensile Strength,MPa≥	6.0	7.0	7.0 7.5			7.0				
Elongationat Break,%≥	450	420	320	280	200	150	ASTM D412			
Tension Set, %≤		7			6		ASTM D412			
Tear Strength Die C, kN/m≥	15	16	1	8	17	16	ASTM D624			
Compression Set, $180^{\circ}$ C*22h $\leq$	35		3	0		25	ASTM D395			
Rebound Resilience, % ≥	60	55	55 50 45 42			40	/			
Volume Resistivity, $\Omega$ •cm $\geq$		1×10 <sup>14</sup>								
Dielectric Strength, kV/mm ≥				18	_		IEC 60243			

- Physical data in the above table is for reference only.
- Curing condition: 175°C\* 5Min.
- Ratio of curing agent liquid 2,5-Dimethyl-2,5-di(tert-butylperoxy) hexane: 0.65%.
- The supplied test report is obtained by the Quality Inspection Department with the curing conditions and testing method of the company; due to the difference of curing conditions and testing method, we can't guarantee that both parties obtain the same testing result, and we suggest that users should use the test data obtained under their own testing conditions as the reference for service performance. All the above performance data and application recommendations are only a reference for use on the service performance of product, instead of a guarantee on the effectiveness or general applicability of our products under a certain application.