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HRS Co., Ltd.
Path to Growth
KOSDAQ



www.hrsslicone.com
www.hrsslicone.com.cn

DM

Dental Impression Materials

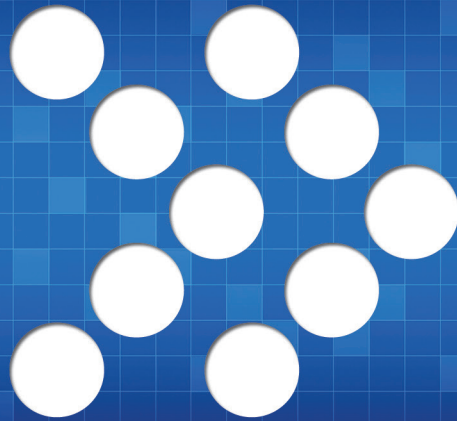
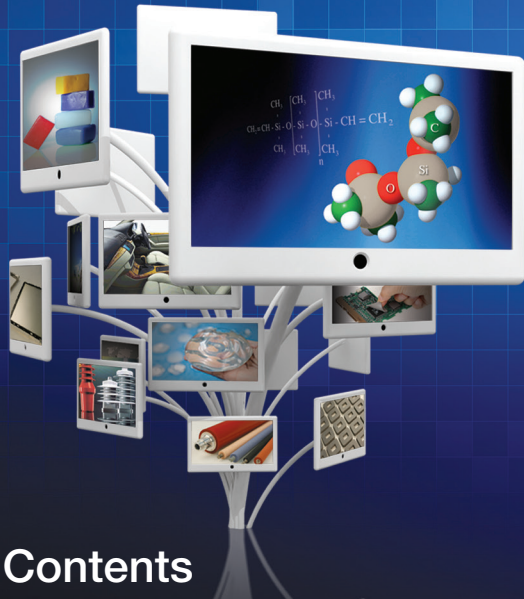


SPECIALIST IN
SILICONE RUBBER TECHNOLOGY



SPECIALIST IN SILICONE RUBBER TECHNOLOGY

Thanks for your interest. We will make every effort to meet your service requirements by developing new technologies and products through continuous research and development.



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EVERYTHING FOR YOUR LIFE



We are an expert in Silicone Technology.
Silicone is an essential material for various industries.

Silicone rubber is used as a key material in many different industries with growing demand. Based on excellent competitiveness in products and customer service, HRS has become No.1 domestic market holder since 2010. We will continue to work hard to become a global silicone company without being satisfied with the present.

SEOUL OFFICE

- Main Businesses
 - Trade Team
 - Finance Team
 - HR-IR Team
 - Strategy & Planning Team

PYEONGTAEK PLANT

- Main Businesses
 - HCR(High Consistency Silicone Rubber)
 - LSR(Liquid Silicone Rubber)
 - RTV(F/S) Silicone Rubber
 - Silicone Gum / Polymer
 - DM(Dental Impression Materials)
 - EMULSION(Silicones for Personal care)

ASAN PLANT

- Main Businesses
 - Rubber Article
 - Silicone Sheet(S/S)
 - PSA(Pressure Sensitive Adhesive)

CHINA PLANT

- Main Businesses
 - Rubber Articles
 - Silicone Sheet (S/S)



SPECIALIST IN
SILICONE RUBBER TECHNOLOGY

43th

2010~ Grow as a renowned
silicone rubber manufacture.

2000~ Open up
sustainable future

1990~ Turn crises
into opportunites

1980~ Take the first step to
become an independent
silicone manufacture.

- 2022. 08 Acquired Certificate of authentication
Excellent Employment Company
- 10 Acquired Small and Medium-Sized
Enterprise designation for talent
development
- 11 Acquired Certificate of Authentication
Promising Small and Medium-Sized
Enterprise
- 2020. 05 Acquired Main-Biz Reselected as a
global hidden champion
(Ministry of SMEs and Startups)
- 2018. 12 Acquired IATF 16949_2016
- 2017. 03 Appointed new CEO
(CEO : jin sung, Kim)
- 2016. 03 Appointed new CEO
(CEO : Ms. Sung Ja Kang)
- 12 Acquired CFDA
(Sildent-Dental impression materials)
- 2014. 06 Acquired FDA
(Sildent-Dental impression materials)
- 2013. 10 Acquired the certification of Hyundai
Rotem Supplier Quality (RSQ)

- 2012. 03 Selected as "THE BEST TAXPAYER"
(Pyeongtaek district tax office)
- 04 Selected as "global hidden champion"
(the Small and Medium Business
Admin istration)
- 09 Selected as "KOTRA GLOBAL
BRAND(BLUE)"
- 2011. 05 Suzhou haeryong silicone co., Ltd.
Was established in CHINA
- 2010. 07 Supply agreement between
'H' Corporation and HRS
- 09 Acquired "INNO-BIZ"
(Ministry of SMEs and Startups)

- 2009. 07 Acquired LFGB certificate from TUV
Rheinland
- 09 Developed dental impression materials
and Acquired KGMP certificate
- 09 Acquired the certification of certificate
of supplier quality(SQ) from Hyundai,
Kia Motor Company
- 12 Acquired ISO 13485
- 2008. 10 Construction completed for Asan Plant
- 11 Awarded "the tower of 10 million dollar
export" as the prize (KITA)
- 2007. 03 Changed the company name to
HRS Co., Ltd.
- 07 Form strategic alliance with
'D' Corporation for Silicone rubber
- 11 Acquired ISO 14001 certificate
- 2006. 08 Appointed new CEO
(co CEO: Ms. Sung Ja, Kang &
Mr. Won Yeong, Ji)

- 2004. 08 Construction completed for
Pyeong-teak Plant
(HCR, LSR, RTV, POLYMER line)
- 2003. 09 Acquired ISO 9001 certificate
- 2000. 05 Listed on KOSDAQ

- 1995. 11 Exported silicone rubber amounting
more than \$5,000,000 for the first time
in the country (Awarded "the tower of
5 million dollar export" as the prize).
- 12 Acquired the certification of EM mark
(silicone RTV foam)
- 1993. 05 National Industrial Technology Center
Supplied and installed Fire Stop Seal for
the 3rd and 4th Yeonggwang nuclear
power plant (Applied localization for the
first time in Korea)
- 1991. 07 Developed the technology to manu-
facture the silicone rubber for general
grade silicone rubber for general grade
molding Acquisition of UL standards
and posting domestic and international
sales (first in Korea)
- 10 Established sales agencies in
Southeast Asia (8 Countries including
Taiwan and Malaysia)
- 1990. 09 Contract with Bayer AG in Germany for
technological affiliation and sales in
Southeast Asia

- 1987. 06 Developed the basic technology for
silicone gum compounding
- 1986. 08 Developed the technology for primary
synthesis of silicone gum
(collaborate with KAIST for the first time
in the country)
- 1985. 03 Changed the name to Hae Ryong
Silicone Co., Ltd.
Moved to the new Plant in Gimpo-si
- 12 Acquired U.L Standard
(UL 94 V-0, Flammability Standard)
- 1983. 10 Awarded for New Material development
by the minister of the Ministry of
commerce and industry
- 1981. 07 Incorporated Hae Ryong
(started developing the manufacturing
technology of silicone rubber
Compound)
- 1978. 05 Established Hae Ryong Trading
Company
(Importing business of silicone rubber)

Sildent™ **Light Body**

Sildent™ **Regular Body**

Sildent™ **Heavy Body**

Sildent™ **Putty**

Sildent™ **FAST** Light Body

Sildent™ **FAST** Heavy Body

Sildent™ **BITE**



Sildent™ Light Body



TECHNICAL DATA

Physical & Mechanical Properties	Standard	
Consistency (mm)	Min. 36mm	
Mixing Time (sec)	Cartridge Type	Auto-Mixing
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	More than 1min	
Color	Base : Green	Catalyst : White
Setting Time (min)	4min (in the mouth)	
Strain in Compression (%)	Within 10%	
Elastic recovery (%)	> 99.5%	
Linear Dimensional change (%)	Within 0.2%	
Detail reproduction (μm)	20μm reproduce	
Compatibility with gypsum (μm)	50μm reproduce	

* Storage temperature 15°C to 25°C

PACKAGING

- 5 cartridges(Base + Catalyst), 50ml each
- 2 cartridges(Base + Catalyst), 50ml each

BENEFITS

- Excellent flow properties
- Hydrophilic properties for excellent flow in wet environment
- High tear strength from deformation
- Working time is secured sufficiently by Snap-set technology
- Extraordinary stability
- Excellent detail reproduction

Sildent™ Regular Body

TECHNICAL DATA

Physical & Mechanical Properties	Standard	
Consistency (mm)	Max. 31~41mm	
Mixing Time (sec)	Cartridge Type	Auto-Mixing
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	More than 1min	
Color	Base : Blue	Catalyst : White
Setting Time (min)	4min (in the mouth)	
Strain in Compression (%)	Within 10%	
Elastic recovery (%)	> 99.5%	
Linear Dimensional change (%)	Within 0.2%	
Detail reproduction (μm)	20μm reproduce	
Compatibility with gypsum (μm)	50μm reproduce	

* Storage temperature 15°C to 25°C

PACKAGING

- 5 cartridges(Base + Catalyst), 50ml each
- 2 cartridges(Base + Catalyst), 50ml each

BENEFITS

- Excellent elastic recovery
- Hydrophilic properties for excellent flow in wet environment
- High tear strength from deformation
- Extraordinary stability
- Excellent detail reproduction



Sildent™ Heavy Body



TECHNICAL DATA

Physical & Mechanical Properties	Standard	
Consistency (mm)	Max. 35mm	
Mixing Time (sec)	Cartridge Type	Auto-Mixing
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	More than 1min	
Color	Base : Purple	Catalyst : White
Setting Time (min)	4min (in the mouth)	
Strain in Compression (%)	Within 10%	
Elastic recovery (%)	> 99.5%	
Linear Dimensional change (%)	Within 0.2%	
Detail reproduction (μm)	50μm reproduce	
Compatibility with gypsum (μm)	50μm reproduce	

* Storage temperature 15°C to 25°C

PACKAGING

- 5 cartridges(Base + Catalyst), 50ml each
- 2 cartridges(Base + Catalyst), 50ml each

BENEFITS

- Excellent elastic recovery
- Hydrophilic properties for excellent flow in wet environment
- High tear strength from deformation
- Long-lasting dimensional stability
- Excellent detail reproduction
- Easy to remove from mouth

Sildent™ Putty

TECHNICAL DATA

Physical & Mechanical Properties	Standard	
Consistency (mm)	Max. 35mm	
Mixing Time (sec)	Jar Type	Manual-Mixing(60sec)
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	More than 1min 40sec	
Color	Base : Violet	Catalyst : White
Setting Time (min)	5min (in the mouth)	
Strain in Compression (%)	within 2.4%	
Elastic recovery (%)	> 99.5%	
Linear Dimensional change (%)	Within 0.11%	
Detail reproduction (μm)	75μm reproduce	
Compatibility with gypsum (μm)	50μm reproduce	

* Storage temperature 15°C to 25°C

PACKAGING

- Base 500g + Catalyst 500g 2jars+ 2spoons
- Base 400g + Catalyst 400g 2jars+ 2spoons

BENEFITS

- Short setting time in mouth
- Non-greasy, satiny smooth, extremely easy to mix
- No bubbles
- Good mechanical properties
- Excellent detail reproduction
- Hydrophilic



Sildent™ FAST Light Body



TECHNICAL DATA

Physical & Mechanical Properties	Standard	
Consistency (mm)	Min. 36mm	
Mixing Time (sec)	Cartridge Type	Auto-Mixing
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	More than 40sec	
Color	Base : Yellowgreen	Catalyst : White
Setting Time (min)	3min (in the mouth)	
Strain in Compression (%)	Within 10%	
Elastic recovery (%)	> 99.5%	
Linear Dimensional change (%)	Within 0.2%	
Detail reproduction (μm)	20μm reproduce	
Compatibility with gypsum (μm)	50μm reproduce	

* Storage temperature 15°C to 25°C

PACKAGING

- 5 Cartridges(Base + Catalyst), 50ml each
- 2 Cartridges(Base + Catalyst), 50ml each

BENEFITS

- Fast working and setting time
- Hydrophilic properties for excellent flow in wet environment
- Excellent detail reproduction
- Long-lasting dimensional stability

Sildent™ FAST Heavy Body

Physical & Mechanical Properties	Standard	
Consistency (mm)	Min. 35mm	
Mixing Time (sec)	Cartridge Type	Auto-Mixing
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	More than 40sec	
Color	Base : Cordovan	Catalyst : White
Setting Time (min)	3min (in the mouth)	
Strain in Compression (%)	Within 10%	
Elastic recovery (%)	> 99.5%	
Linear Dimensional change (%)	Within 0.2%	
Detail reproduction (μm)	50μm reproduce	
Compatibility with gypsum (μm)	50μm reproduce	

* Storage temperature 15°C to 25°C

PACKAGING

- 5 Cartridges(Base + Catalyst), 50ml each
- 2 Cartridges(Base + Catalyst), 50ml each

BENEFITS

- Fast working and setting time
- Hydrophilic properties for excellent flow in wet environment
- Excellent elastic recovery
- Excellent detail reproduction
- Long-lasting dimensional stability
- Easy to remove from mouth



TECHNICAL DATA

Physical & Mechanical Properties	Standard	
Mixing Time (sec)	Cartridge Type	Auto-Mixing
Mixing Ratio	Base : Catalyst	1 : 1
Working Time (sec)	Over 30sec	
Color	Base : Yellow	Catalyst : White
Setting Time (min)	1 min (in the mouth)	
Hardness (HD)	More than 22HD (or Min. 22HD)	
Linear Dimensional change (%)	Within 0.2%	

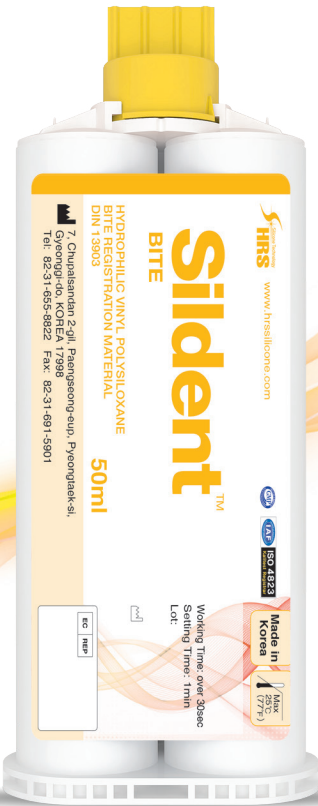
* Storage temperature 15°C to 25°C

PACKAGING

- 5 Cartridges(Base + Catalyst), 50ml each
- 2 Cartridges(Base + Catalyst), 50ml each

BENEFITS

- Extremely fast setting time of 1:00 min
- High Hardness
- Outstanding occlusal details and accurate bite registration
- Easy to trim and grind





HIGH CONSISTENCY SILICONE RUBBER

Silicone Rubber is classified into HTV (High Temperature Vulcanization) and RTV (Room Temperature Vulcanization) by its curing temperature.

Also, HTV is divided into Millable Type Silicone Rubber and Liquid Type Silicone Rubber by its degree of polymerization. Millable Type Silicone Rubber is composed mainly of Polyorganosiloxan(Silicone Polymer) and Silica with various additives to grant different characteristics. We call this stage of Silicone Rubber as “Base Compound”. Then this “Base Compound” is catalyzed, pigmented with twin roll mill and cured by various fabrication methods like compression molding and extrusion.

Due to its status, Millable Type Silicone Rubber is also being called as “HCR (High Consistency Silicone Rubber)” in the market.



HCR

LIQUID SILICONE RUBBER

LSR is Liquid Type and High Temperature Vulcanization Silicone Rubber. LSR differs from Millable Type Silicone Rubber and RTV (Room Temperature Vulcanization) by its viscosity and curing temperature.

LSR is perfect rubber material for automated injection molding due to its excellent liquidity. Also, LSR is ideal for complex molds, demanding design and tolerance because it can be easily filled almost every complex part of a mold.

LSR also generates relatively less volatiles and it makes LSR possible to be used that required inertness for example pacifier, diving mask, medical tube, snorkel and bakeware.



LSR



ROOM TEMPERATURE VULCANIZATION

HRS RTV 2K for fire-stop system is designed based on Silicone Rubber's unique characteristics such as high temperature resistance, flame retardant, sound-proofness and air-tightness. HRS RTV 2K is in two parts and the mixing ratio is 1:1.

Once the two parts mixed, the mixture is cured within several minutes and fully cured within 24 hours. The final form of HRS RTV 2K is varied in density from solid elastomer block to sponge.

HRS RTV 2K is used as proven fire-stop materials in many fields like skyscrapers, hotels, department stores, nuclear power plant, thermal power plants, chemical plants, and refineries. Demand for HRS RTV 2K is increaseing from new fields, which require perfect fireproof sealing without generating harmful toxic gases.



RTV

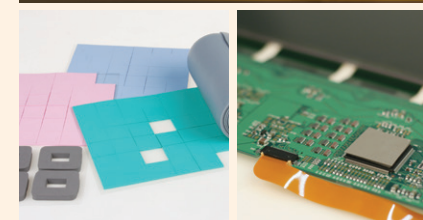
SILICONE SHEET

With the development of IT industry, electronic products are becoming smaller, thinner and multi-featured. Due to this trend, the thermal management of electronic products is also getting more and more important.

HRS SS products have developed to meet the needs of times based on Silicone Rubber's characteristics like high thermal conductivity, flame retardant, high temperature resistance etc...

And the demand is getting wider into auto industry, shipbuilding industry, medical industry and home appliances.

HRS SS product line includes functional silicone tape, super slim sheet, functional silicone foam, flame retardant silicone sheet, silicone tube, silicone packing, fiberglass reinforced thermal management sheet and adhesive silicone film etc...



SS

- The data and information presented in this catalog may not be relied upon to represent standard values. HRS Co., Ltd. reserves the right to change such data and information, in whole or in part, in this catalog, including product performance standards and specifications without notice.
- Users are solely responsible for making preliminary tests to determine the suitability of products for their intended use. Statements concerning possible or suggested uses made herein may not be relied upon, or be construed, as a guaranty of no patent infringement.



Silicone rubber composition for low density and lowhardness



Preparation Method of Silicone Based Polymer Foams with Low Density and Low Hardness



Process for preparing of silicone lampshade



Manufacturing Method Of EMBO Type Silicone Rubber Sheet



ISO 9001



ISO 14001



ISO 13485



IATF 16949



A lampshade to be sprayed silicone layer



ACF Film bonding sheet and Manufacturing method thereof



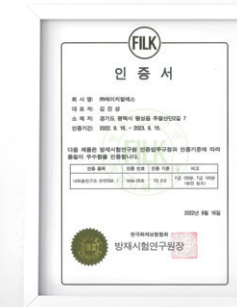
Silicone composition for back light unit lamp holder of liquid crystal display



Thermal conductivity liquid silicone rubber composition and manufacturing method thereof



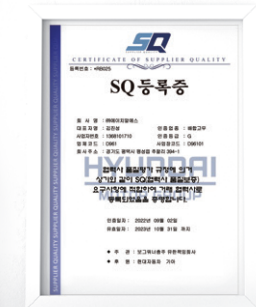
ISO 9001 (FS, Polymer)



FILK



RSQ



SQ



Liquid silicone addition type adhesive composition



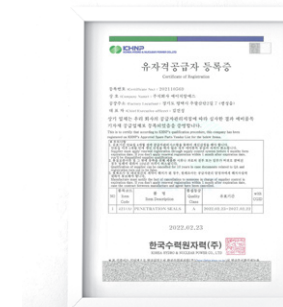
Composition for silicone release coating and release film comprising same



Composition for silicone adhesive coating and adhesive film comprising the same



Silicone sheet for back light unit side cushion rubber of liquid crystal display



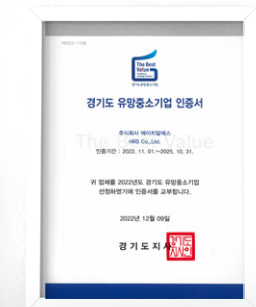
KHNP Certificate Of Registration



INNO-BIZ



MAIN-BIZ



Certificate of Authentication Promising Small and Medium-Sized Enterprise