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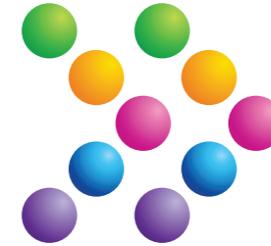
HRS Co., Ltd.  
Path to Growth  
**KOSDAQ**



www.hrssilicone.com  
www.hrssilicone.com.cn

# DM

Dental Impression Materials

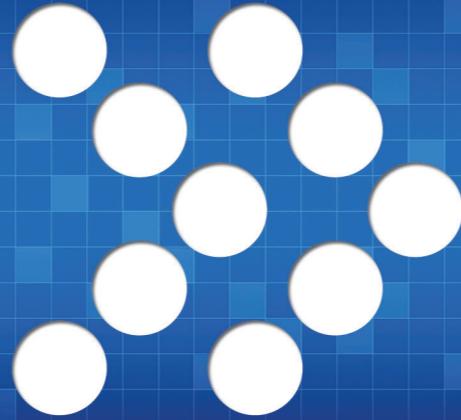
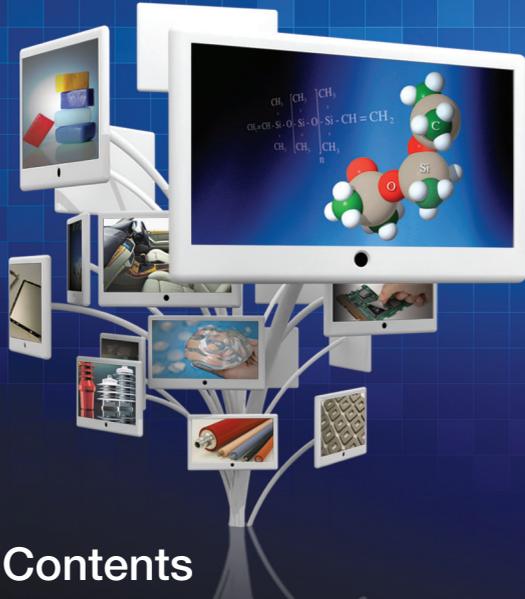


SPECIALIST IN  
**SILICONE RUBBER TECHNOLOGY**



# 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)



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SILICONE RUBBER TECHNOLOGY

43th

### 2010~ Grow as a renowned silicone rubber manufacture.

- 2022. 08 Acquired Certificate of authentication Excellent Employment Company
- 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)
- 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)
- 2011. 05 Suzhou haeryong silicone co., Ltd. Was established in CHINA
- 2010. 07 Supply agreement between 'H' Corporation and HRS
- 2010. 04 Selected as "global hidden champion" (the Small and Medium Business Administration)
- 2010. 09 Selected as "KOTRA GLOBAL BRAND(BLUE)"
- 2010. 09 Acquired "INNO-BIZ" (Ministry of SMEs and Startups)

### 2000~ Open up sustainable future

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

### 1990~ Turn crises into opportunities

- 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).
- 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 manufacture 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)
- 1990. 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

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

- 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
- 1983. 10 Awarded for New Material development by the minister of the Ministry of commerce and industry
- 1983. 12 Acquired U.L Standard (UL 94 V-0, Flammability Standard)
- 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

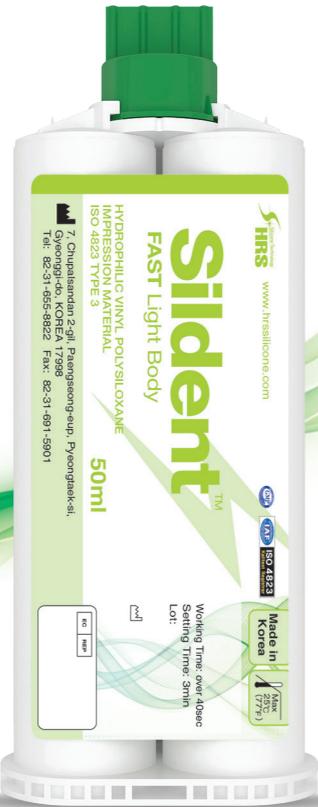
- Base 500g + Catalyst 500g 2jars+ 2spoons
- Base 400g + Catalyst 400g 2jars+ 2spoons

### 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

## TECHNICAL DATA

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%	

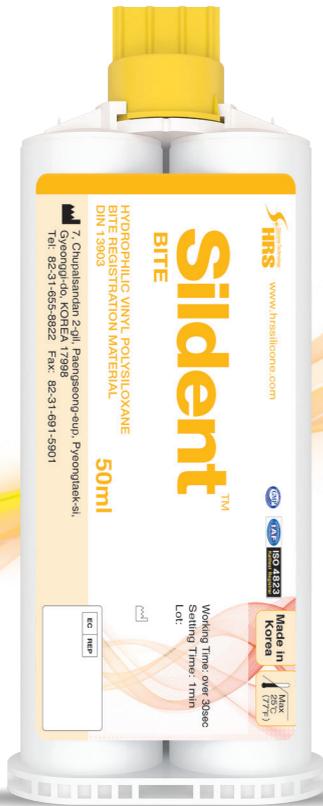
\* Storage temperature 15°C to 25°C

### 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 increasing from new fields, which require perfect fireproof sealing without generating harmful toxic gases.



# RTV

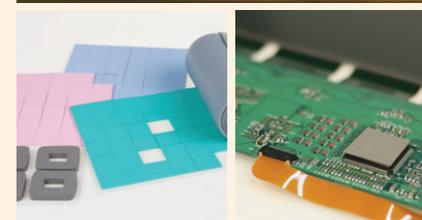
## SILICONE SHEET

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

# CERTIFICATES

• 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



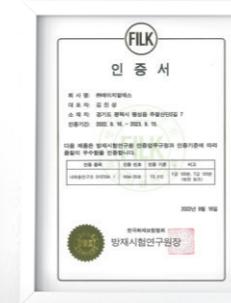
Silicone composition for back light unit lamp holder of liquid crystal display



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



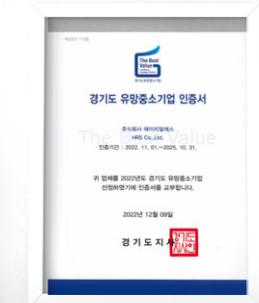
KHNP Certificate Of Registration



INNO-BIZ



MAIN-BIZ



Certificate of Authentication Promising Small and Medium-Sized Enterprise