



A Subsidiary of PETRONAS Chemicals Group

# Silicone Solutions

## for RTV-2 Formulators



# BRB International

## A Global Leading Specialty Chemicals Company by solving tomorrow's needs

BRB is a globally recognized, independent leader in advanced silicones and specialty chemicals. Driven by innovation, we anticipate the evolving needs of our customers and industries, developing breakthrough technologies that push boundaries. Our commitment to long-term partnerships and customer success sets us apart. As a proud subsidiary of PETRONAS Chemicals Group Berhad, BRB leverages expanded global reach and cutting-edge innovation resources to deliver even greater value.

What started as a small business in 1981 has evolved into a powerhouse with 400 employees across 11 locations worldwide. Today, BRB ranks among the largest independent manufacturers and suppliers of specialty silicones, core intermediates, and silanes. Our diverse portfolio of silicone-based solutions enhances countless applications—improving everyday life and empowering customers to stay ahead of the competition.



**BRB supplies a comprehensive range of silicone products to elastomer formulators for addition or condensation cure formulation. Products include polymer, silicone hydride, additives, base, gum and platinum catalyst.**

Dual and mono Vinyl-terminated polydimethylsiloxanes are available in various viscosities and vinyl contents. The Vinyl Dimethicone range also meets the cyclosiloxane content (D4/D5/D6) according to SVHC regulations.

Silicone hydride fluid where the functional group (hydride) is pendant, terminal and or both to increase the crosslinking density. Available in different viscosities and hydride content. For condensation cure formulation, please refer to our Silane products for a range of crosslinkers and adhesion promoters.

Vinylated MQ resins to improve mechanical properties whilst maintaining the transparency of elastomer. Available in different viscosities and vinyl content and customization is available upon request.

Silicone base compounded with silica for ease of use to avoid handling of silicas. Two grades are available with a cured hardness of Shore A 50 and 60.

Platinum (Karstedt) catalyst available in 1% weight disperses in a vinyl fluid.

The standard volatile content is 1%.

## Vinyl functional silicone polymer

BRB Vinyl Dimethicone range is vinyl terminated PDMS in lower volatile content (0.5%) and cyclic siloxane (D4/5/6) content not exceeding 1000ppm each.

Name	Vinyl Content (mmol/g)	VISCOSITY (cSt)
BRB Vinyl Dimethicone 20 cSt	1.00	20
BRB Vinyl Dimethicone 100 cSt	0.38	100
BRB Vinyl Dimethicone 200 cSt	0.25	200
BRB Vinyl Dimethicone 500 cSt	0.15	500
BRB Vinyl Dimethicone 1000 cSt	0.11	1000
BRB Vinyl Dimethicone 2000 cSt	0.08	2000
BRB Vinyl Dimethicone 5000 cSt	0.06	5000
BRB Vinyl Dimethicone 10,000 cSt	0.05	10,000
BRB Vinyl Dimethicone 20,000 cSt	0.04	20,000
BRB Vinyl Dimethicone 65,000 cSt	0.03	65,000

## Specialty vinyl functional silicone polymer

BRB Mono Vinyl Fluid are single side Vinyl terminated PDMS used to adjust mechanical properties such as hardness and crosslinking density.

Name	Vinyl Content (mmol/g)	Viscosity (cSt)
BRB Mono Vinyl Fluid 100 cSt	0.15	100
BRB Mono Vinyl Fluid 1000 cSt	0.065	1000

## Vinyl functional resins

Used as an additive to improve mechanical properties of addition cure elastomer. The resins dispersed in Vinyl fluid except for BRB MQ 100.

Name	Vinyl Content (mmol/g)	Viscosity (cSt)
BRB MQ 339	0.22	6500
BRB MQ 393	0.20	50000
BRB MQ 320	0.29	1300
BRB MQ 325	0.26	6500
BRB MQ 330	0.30	6500
BRB MQ 100	0.96	Powder

For product customization (vinyl content and viscosity), please get in touch with our sales representative in your region.

## Hydride functional silicone polymer

Used as a crosslinker or extender in most additional cure formulations.

Name	Description	SiH content (mmol/g)	Viscosity (cSt)
BRB Crosslinker 434H4	Trimethyl terminated, pendant hydride	4.0	50
BRB Crosslinker 1595H7	Trimethyl terminated, pendant hydride	7.0	30
BRB Crosslinker 1738H1.9	Trimethyl terminated, pendant hydride	1.9	53
BRB Modifier 1439	Hydride terminated PDMS	2.5	5
BRB Modifier 1449	Hydride terminated PDMS	1.4	14
BRB 959H2.5	Hydride terminated & pendant hydride	2.5	30

## Silicone gum

Vinyl functional PDMS gum is a crucial ingredient for manufacturing silicone rubber and master batch pigments and process additives.

Name	Vinyl Content (mmol/g)	Molecular weight (10 <sup>4</sup> )
BRB TG 22	0.02 to 0.12	40 to 80

For specific vinyl content and viscosity, please get in touch with our sales representative in your region.

## Silicone base

A mixture of vinyl silicones and reinforcing filler is used primarily in addition cure elastomer formulation.

	BRB B300	BRB 1300
Durometer (Shore A)	50	62
Tear Strength (kN/m)	33	30
Tensile Strength (Mpa)	9	10
Elongation (%)	520	422
Viscosity @ 25°C (Pa.s)	300	800

- 100 parts of Base, 3.5 parts of crosslinker 434H4, 0.12 parts of 1-ETCH & 0.05 parts of Pt catalyst
- Curing - 10 mins @ 175°C and post cure 4 hours @ 200°C

## Cure inhibitor

BRB Inhibitors are Vinyl-functional siloxanes used to increase the pot life of addition-cured RTV-2.

Name	Viscosity (cSt)	Density (g/cm <sup>3</sup> )
BRB Vinyl M2 (CAS# 2627-95-4)	1	0.81
BRB Vinyl D4 (CAS# 2554-06-5)	4	0.98

## Platinum catalyst

**BRB Pt Cat 10000 Fast** consists of 1% (wt) of Karstedt platinum catalyst in a vinyl fluid.

## Silanol functional silicone polymer (low viscosity)

Reactive polymers have various viscosity and silanol content. Used as a base polymer to formulate condensation cure RTV, filler treatment and anti-structuring. Additives in HCR.

Name	Description	Viscosity (cSt)
BRB OH Fluid 40	Silanol terminated, 4% OH content	40
BRB OH Fluid 70	Silanol terminated, <2.5% OH content	70
BRB OH Fluid 750	Silanol terminated	750
BRB OH Fluid 1000	Silanol terminated	1000
BRB OH Fluid 2000	Silanol terminated	2000
BRB OH Fluid 3500	Silanol terminated	3500
BRB OH Fluid 5000	Silanol terminated	5000
BRB OH Fluid 6000	Silanol terminated	6000

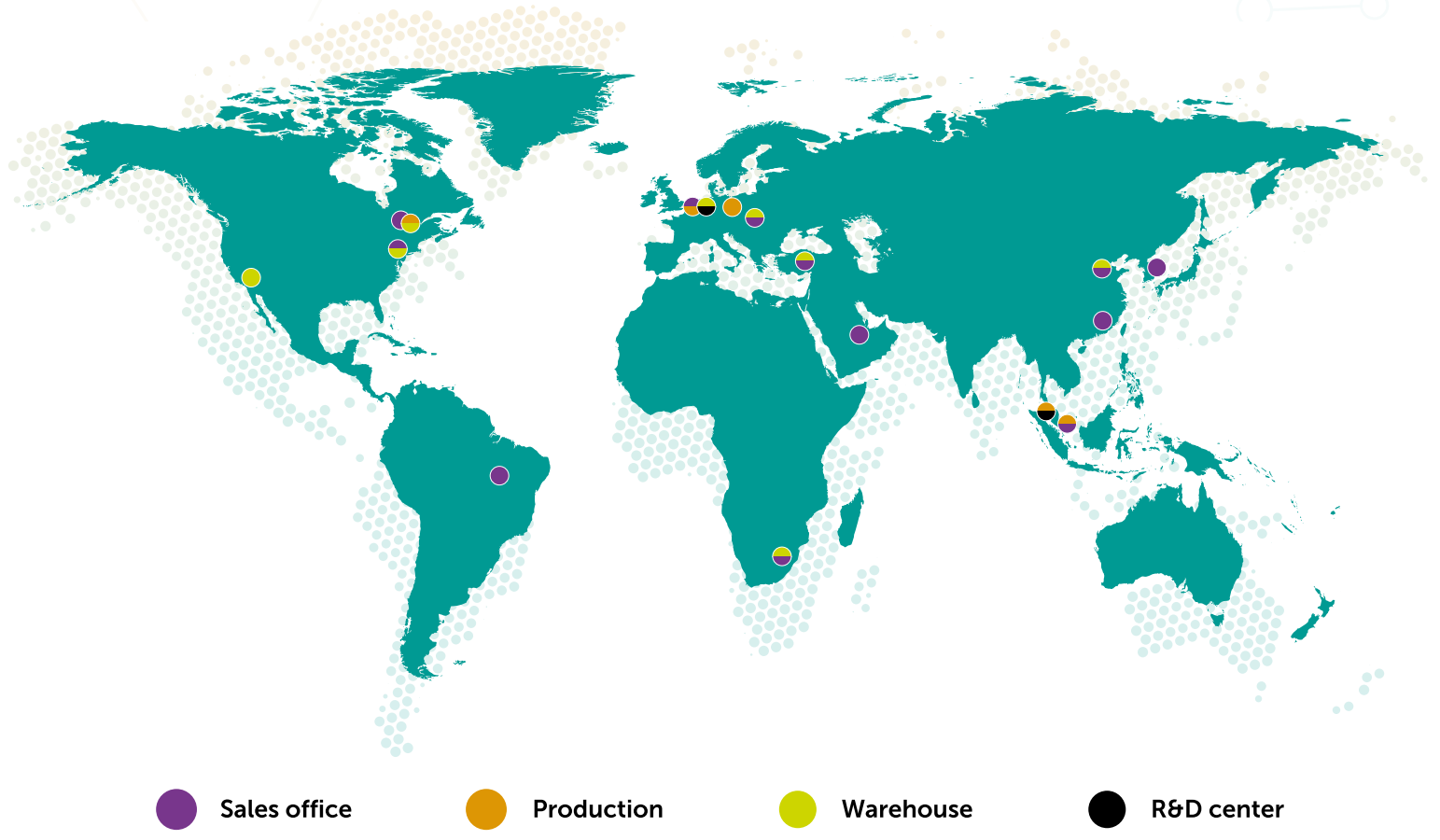
Also available are high-viscosity silanol polymers 20,000 cSt, 50,000 cSt & 80,000 cSt, commonly used in RTV-1 sealant. For crosslinker, please refer to our silane product brochure.




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