

# SOLESPHERE



## Microsphere Silica Gels for Cosmetic and Personal Care Applications

**SOLESPHERE™** is made from silicon dioxide ( $\text{SiO}_2$ ), which is abundant in nature. We use a proprietary process to produce silica gels in a spherical shape having particle sizes from 3-20 $\mu\text{m}$  and an oil absorption range from 30-400 mL/100g. SOLESPHERE™ is an amorphous type silica which are safe for the environment and safe to use in cosmetic and personal care applications.

### Key Attributes

- Good oil absorption
- Light scattering, soft focus
- Anti-settling
- Anti-caking
- Gentle abrasive for exfoliation applications
- Soft, smooth texture with a silky dry finish in creams and lotions
- Good alternative for plastic/microbeads and other nanomaterials
- Enhances formulation stability

### Product Line Up



#### H-Series Gels

- High surface area (700-800  $\text{m}^2/\text{g}$ )
- Porous
- Two types available:  
Normal and High Absorption
- Particle size range of 3-20 $\mu\text{m}$
- Applications: Insect repellants, deodorants, sunscreens, cosmetics



#### L-Series Gels

- Lower surface area (300  $\text{m}^2/\text{g}$ )
- Same oil absorption as H-series grades
- Very smooth and easily blended with other materials
- Porosity provides light scattering effects
- Application: Cosmetics



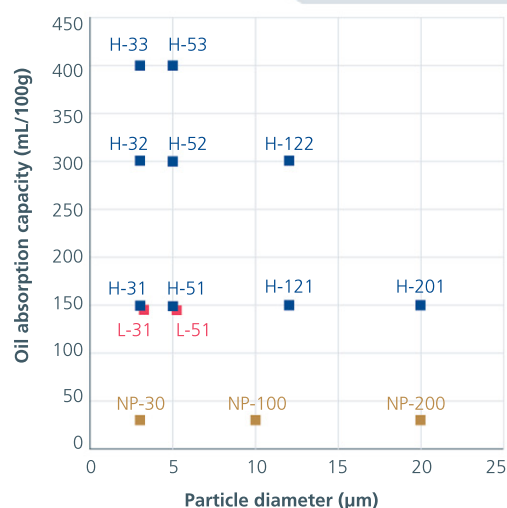
#### NP-Series Gels

- Good hardness
- High compression strength
- Highly refractive
- Stabilizes formulations
- Heat resistance and tolerance to temperature changes



## Available Grades

Grade	Mean Particle Size (μm)	Specific Surface Area (m <sup>2</sup> /g)	Pore Volume (mL/g)	Pore Diameter (nm)	Oil Absorption (mL/100g)	
H-Series Normal Type	H-31	3	800	1	5	150
	H-51	5	800	1	5	150
	H-121	12	800	1	5	150
	H-201	20	800	1	5	150
H-Series High Absorption Type	H-32	3	700	2	10	300
	H-52	5	700	2	10	300
	H-122	12	700	2	10	300
	H-53	5	700	2	11	400
L-Series	L-31	3	300	1	13	150
	L-51	5	300	1	13	150
NP-Series	NP-30	4	40	0.05	-	30
	NP-100	10	50	0.1	-	35
	NP-200	20	100	0.1	-	40



Wide range of particle size and oil absorption

## Applications

Target	Aim	Effect	Applicable Grades	
Skin care / Foundation	Texture improvement	Slippery	H-51, H-121	
		Smoothness	NP-30, NP-100	
		Transparency	NP-30, NP-100	
		Matte effect (Foundation)	H-121	
	Sweat & sebum absorption	Long lasting effect	H-51, H-121	
		Anti-oily feeling	H-52, H-53	
Coverage of wrinkle	Soft focus	H-51, H-121, H-32, H-52		
	Defined features	Stereoscopic effect	H-51, H-121	
Lip stick	Sweat & sebum absorption	Long lasting effect	H-32, H-52, H-53	
Mascara	Volume up	Rheology control	Solidifying agent	H-32, H-52, H-53
		Bulking agent	H-121, NP-200	
Sunscreens	SPF boost & sweat absorption	SPF Boost	H-52, H-53	
		Long lasting effect	H-52, H-53	
Body Washes	Texture improvement	Smoothness	H-121, NP-200	
		Long lasting effect	H-121, NP-30, NP-100, NP-200	
Deodorants	Sweat absorption	Long lasting effect	H-33, H-31, NP-30	
		Solidifying agent	H-33, H-31, NP-30	
Cream Cleansers	Texture improvement	Slippery	H-51, H-121, NP-30, NP-100, NP-200	
		Smoothness	H-51, H-121, NP-30, NP-100, NP-200	
Body Scrubs	Texture improvement	Exfoliation	NP-30, NP-100, NP-200, D-200L	



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Visit our website for compliance information and industry certifications.

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