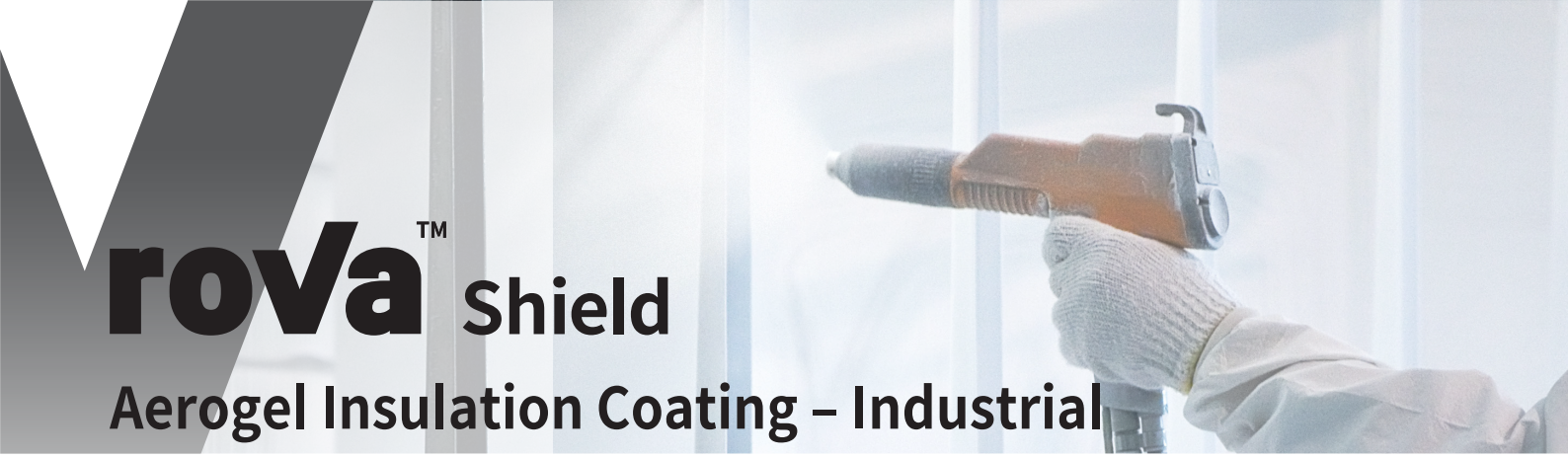


roVa™ Shield

Aerogel Insulation Coating – Industrial

roVa™ Shield is an environmentally friendly water-based insulation coating using silica aerogel powder as the main performance ingredient. It exhibits excellent thermal insulation and hydrophobic properties and is perfect for improving the energy efficiency of industrial plants and facilities, as well as dampening ambient sound and noise.

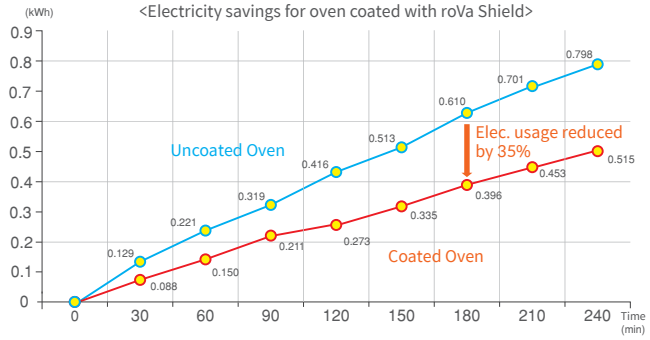
Technical Features

Coating type	Acrylic
Color	White
Size	18L
Density	0.5 ~ 0.6g/cm^3
Viscosity	12,000 ~ 13,000cPs
Application method	brush, roller, airless spray
Theoretical coverage	1.1 ~ 1.2m^2/L (500μm thickness)
Solids by volume	55~60%
Dry to touch time	20 minutes
Cure time	5 hours
Storage	6 months
Thermal conductivity	0.040 ~ 0.045W/m·k
Recommended Temp.	10 ~ 40°C

Performance

- Energy savings through excellent thermal insulation properties, utilizing the low thermal conductivity of aerogel (0.017 ~ 0.022mW/mk)
- Energy savings over 30% when roVa Shield is applied to hot ovens and dryers.

<Electricity savings for oven coated with roVa Shield>



Uncoated / Time (min)	0	60	120	180	240
Electricity Usage(kWh)	0	0.221	0.416	0.610	0.798
Coated / Time (min)	0	60	120	180	240
Electricity Usage(kWh)	0	0.150	0.273	0.396	0.515
Energy saving(%)	0	32.1%	34.4%	35.1%	35.5%

* Tested by: roVa Corporation, 2019

Usage and Application

- Apply with ease using ordinary paint equipment
- Lower surface and site temperature of heated elements in industrial plants and facilities
- Insulate outer walls by using with roVa Shield Topcoat
- Lower energy cost by applying to industrial equipment of continuous usage
- Lower sound and vibration within industrial zones

Environmentally Friendly

- Does NOT contain dangerous chemicals, VOC, or bad odor
- Minimize carbon emission by promoting energy efficient buildings

roVa

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roVa™ Shield

Aerogel Insulation Coating User Manual

Product Preparation

- **Do not add water or other additives.**
- Store at room tempearture(10 ~ 30°C), and avoid direct contact of sunlight or fire.
- Keep the product sealed before and after use.
- Mix the product for 3~5 minutes to evenly disperse ingredients.
- Avoid direct contact to your eye or skin. If contacted, seek for medical advice if you're concerned.
- Read GHS-MSDS for your own safety.

Product Application

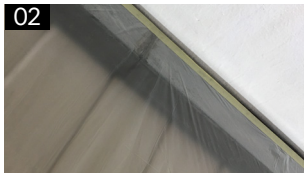
- Avoid applying in a humid(humidity over 85%) or cold(10°C or lower) environment, for the coating might not show it's best performance.
- Ventilate the area when applying and drying the product.
- Wear safety equipment at all times.
- Keep the application surface clean.
- If the surface material is cement or concrete, it is best to slightly wet the surface before applying the coating. If the surface material is stainless steel or plastic, it's best to apply primer before applying the product.
- Avoid direct contact of water before the coated surface is fully dried.

Post Product Application

- Clean equipment with water after the product application.
- Store used product at room temperature.
- Contact your local authority for information on waste disposal.

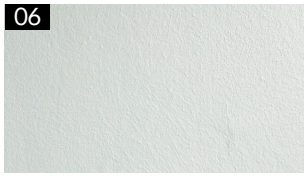
Application Method

01 Prepare the product, application equipment & safety equipment.
02 Organize the environment. Clean the applying surface.



03 Apply primer if necessary.
04 Mix the product for 3~5 minutes before the application.

05 Use brush, roller or air-less sprayer to apply the coating.
06 Requires 1~2 hour drying time for re-application.



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