specialist for new technology



Nano Technology

Heat Insulation

Exterior & Interior Heat & Water Insulation

Global Warming Friendly!





TH-520 Exterior Coating / Textured

Prefered for the best insulation



General Characteristics: It is a water-based silicon modified acrylic resin coating for exterior surface.

New generation Heat Insulating Material systems.

Saving between 30-50% is provided according to the structures of the buildings with this system developed by NASA.

- These products have the best insulation value in the world.
- · Breathing exterior coating with heat insulation additives.
- Used for heat insulation in interior and exterior sides.
- Excellent anti-condensation property, due to heat differences and prevents mold and humidity formation
- Silicone modified product is water repellent and it is resistant to any atmospheric conditions for 4 seasons. Its life is much higher according to most standard paints.
- Applied as a high-build coating with a very special textured appearance.
- · Long-life nano technological structure.
- Elastomeric (400%) structure, it seals hair cracks on the surface. It protects its elasticity between -30 C and +80 C.
- Matte appearance.
- High resistance to sun rays (UV) and it does not cause discoloration.
- It is not poured out, swollen and cracked by being peeled.
- · Water-based and environmental-friendly. It is odorless.
- Approved by energy identity document.



Areas of Use:

- It may comfortably be applied on any plaster, exposed concrete, cement plate, wooden and metal surfaces after suitable primer.
- On surfaces, for which external wall heat insulation is desired.
- · Prefabricated buildings
- In buildings, schools and business centers of 21m and over as per fire regulations.



Application: The surface should be cleaned from dust and dirt. It should be applied after appropriate surface primer before applying on old and new structures.

It is diluted by 3% water in volume before application and in hot weather.

TH-515 Primer is primarily recommended in raw or dusting surface.

Thermal Nano Coat should be applied at least for 1 layer before application in order to increase the Thermal performance in old and new structures.

Afterwards Thermal Texture is thoroughly mixed and applied for 1-2 coats with rolls.

Caution! Never mix with fast circuit drill.

Drying Period (20°C): Full drying time is 36 hours. Protect from frost and rainfall during this period.

Second coat may be applied 6 hours later **Consumption:** Approximately 1,000 L/m2

Solvent /Cleaning: With water **Colors :** Robyns catalogue 45 colors.

<u>Product No</u>	Plaster Surface	<u>Coat</u>	Consumption L/ m2
TH-515	Primer (old-dusty surfaces only)	1	0,100
TH-510	Nano Coat Primer	1	0,150
TH-520	Thermal TEXTURECoating	1-2	1,000





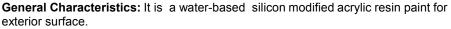






Th-525 Exterior Paint / Silicone modified

WATER and **HEAT** insulation



New generation Heat Insulating Material systems.

Saving between 30-50% is provided according to the structures of the buildings with this system developed by NASA.

- · Flat exterior paint with heat insulation additives.
- · Used for heat insulation in exterior walls.
- Breathing due to heat differences and prevents mold and humidity formation
- · Good anti-condensation property.
- Silicone modified product is water repellent and it is resistant to any atmospheric conditions for 4 seasons. Its life is much higher according to most standard paints.
- Long-life nano technological structure.
- Matt appearance.
- High resistance to sun rays (UV).
- It is not poured out, swollen and cracked by being peeled.
- Water-based and environmental-friendly. It is odorless.
- Approved by energy identity document.



- It may comfortably be applied on any plaster, exposed concrete, ytong, cement plate, wooden and metal surfaces after suitable primer.
- On surfaces, for which external wall heat insulation is desired.
- · Prefabricated buildings
- In buildings, schools and working places of 21 m and over as per fire regulations.

Application : The surface should be cleaned from dust and dirt. It should be applied after appropriate surface primer before applying on old and new structures.

It is ready to use . However, it is diluted by 3% water in volume to apply in hot weather.

TH-515 Primer is primarily recommended in raw or dusting floor.

Thermal Nano Coat should be applied at least for 1 layer before application in order to increase the Thermal yield in old and new structures. Afterwards Thermal Paint is thoroughly mixed and applied for 2 layers with rolls. Caution! Never mix with fast circuit drill.

Drying Period (20°C): Full drying time is 36 hours. Protect from frost and rainfall during this period.

Second layer may be applied 6 hours later.

Consumption: Approximately 0,400 L/m2 for 2 coats.

Solvent /Cleaning: With water. **Colors :** Robyns catalogue 45 colors.

Product No	Plaster Surface	<u>Coat</u>	Consumption L/ m2
TH-515	Primer (old-dusty surfaces only)	1	0,100
TH-510	Nano Coat Primer	1	0,150
TH-520	Thermal Exterior Paint	2	0,400

Global Warming Friendly!

Thermal Coatings perform by reflection of heat and sun, this is the reason it is beneficial in hotter climates.

Such as Middle East, Africa and other tropical climates.

Because of the this sun reflected activated paints energy is saved 30% to 50%

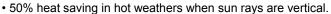




TH-550 Roof

WATER & HEAT Insulation

General Characteristics: Water-based elastomeric polyurethane resin coating.



- Silicone modified product is water repellent, it is resistant to any atmospheric conditions for 4 seasons.
- · Long-life nano technological structure
- Elastomeric structure, it has elasticity of 400-600%.
- · Creates an elastic, jointless insulation when it gets dried.
- Protects elasticity between -30 C and +80 C.
- Excellent anti-condensation property, due to heat differences and prevents mold and humidity formation.
- · Matte appearance.
- High resistance to sun rays (UV).
- · It does not crack or peel.
- · Water-based and environmental-friendly. It is odorless.

Areas of Use:

- It may comfortably be applied on any plaster, exposed concrete, brick, cement plate, wooden and metal surface after suitable primer.
- Terrace Roofs
- For water and heat insulation purposes for use under tiles.
- Metal, Galvanized, Steel Factory roofs and cantilevers.
- Prefabricated buildings
- Shingling and bitumen based roofs.

Application : The surface should be cleaned from dust and dirt. Firstly appropriate surface primer should be used before application on old and new structures.

2 layers of Th-550 Roof is used without being thinned after lining. Each layer should be applied and sprayed in single direction. The latest layer should be applied in vertical direction to brush, roll or spraying direction during application of previous layer.

Drying Period (20°C): Full drying time is 72 hours. Protect from frost and rainfall during this period. Second coat may be applied 15 hours later.

Consumption: Approximately for 2 layers 0,900 L/m2 - 1,250 L/m2

with fiber net applications. **Solvent /Cleaning:** With water.

Colors: White, Grey, Oxide Red - Green - Blue

It reflects about 95% of solar lights and 80% of UV lights



<u>Product No</u>	Plaster Surface	<u>Coat</u>	Consumption L/ m2
TH-515	Primer (old-dusty surfaces only)	1 kat	0,100
TH-510	Nano Coat Primer	1 kat	0,150
TH-550	Thermal ROOF	2 kat	1,000
	Metal & Galvanize Surface		
AP-100	Metal Primer (corrosion surface only)	1 kat	0,300
TH-513	Galvaniz Metal Sealer	1 kat	0,150
TH-550	Thermal ROOF	2 kat	0,900
	Shingel – Bitumen Surface		
TH-550	Thermal ROOF	2 kat	1,000









Th-530 Interior Coating / Silicone modified

Insulation from Inside

General Characteristics: High quality Latex-acrylic based interior wall paint.

- Saving up to 30% is provided according to the structures of the buildings with this system developed by NASA.
- It may comfortably be applied on any old and new acrylic or latex interior wall paint.
- Excellent anti-condensation property, due to heat differences and prevents mold and humidity formation
- · Long-life nano technological structure.
- Matte appearance.
- Water-based and environmental-friendly. It is odorless.
- It prevents sweating arising due to heat differences and prevents mold and humidity formation.

Areas of Use:

- On surfaces, for which interior wall heat insulation is desired.
- · Prefabricated buildings
- In buildings, schools and working places of 21m and over as per fire regulations.
- On the purpose of preventing condensation and mold in the rooms towards north.
- · In bathrooms and Sports facilities

Application: It is ready for use.

However; it should be diluted by 3% water in volume at the most,

when needed. The surface firstly should be cleaned from dust and dirt.

Primer should be applied for 1 layer before applying in old and new structures.

Afterwards, Thermal Paint is applied at least for 2 coats. Approximately 6 hours should be waited between the layers. **Drying Period (20°C):** Full drying time is 36 hours. Protect from frost and rainfall during this period. Second layer may be applied 6 hours later.

Consumption: Approximately 0,400 L/m2 for 2 coats.

Solvent /Cleaning: With water. **Colors:** Robyns catalogue 45 colors.

Product No	Plaster Surface	<u>Coat</u>	Consumption L/ m2
TH-515	Primer (old-dusty surfaces only)	1	0,100
TH-510	Nano Coat Primer	1	0,150
TH-530	Thermal Interior Paint	2	0,400

Th- 505 Floor Primer

Insulation Between Floors

General Characteristics: Water based co-polymer resin, thermal insulation primer for floor and ceiling.

- It is known that heat loss in the buildings is from floors, ceilings and walls at the most.
- · Many insulation materials may be used only on walls.
- Especially used in northern countries in order not to lose hot weather used within the rooms, for the purpose for saving from the air-conditioner in hot countries.
- · Used for hear and sound insulation.

Usage Areas:

- Under floor covering; Parquet, Carpets, Ceramics or Vinyl.
- As ceiling paint primer
- It is easily applied in interior walls only on any concrete floors.
- 5% white cement addition is recommended to achieve a harder layer in floor applications.

Application: It is ready for use. It is applied without thinning.

The surface firstly, should be cleaned from dust and dirt. Full drying time is 24 hours.

Consumption: Approximately 0,150 L/m2 for 2 coats.

Solvent /Cleaning: With water.

Colors: White.





Th-510 Nano Coat – Primer

Prefered for the best Insulation



General Characteristics: It is an insulation primer based on water-based modified acrylic resin.

- Special primer materials with heat insulation additives used before coatings to be applied in exterior and Interior walls.
- Especially to be used in places, where heat insulation is prefered.
- Increased heat insulation performance of top coat and anti-condensation property by nano technology.
- It prevents dusting of the surface and it prepares a durable surface for paint.

Areas of Use:

- It may comfortably be applied on any plaster, exposed concrete, cement plate, wooden and metal surfaces after suitable primer.
- On surfaces, for which exterior and interior wall heat insulation is desired.
- · Prefabricated buildings

Application Diluted by 5% water in volume and stir well before use.

Drying Period (20°C): Full drying time is 8 hours. Protect from frost and rainfall during this period.

Consumption: Approximately 0,150 L/m2 for single coats.

Solvent /Cleaning: With water.

Colors: White

Th-513 Galvanized - Metal Sealer

General Characteristics: It is a protective primer material based water-based Acrylic-Polyurethane.

- It provides adhesion of metal, galvanized and aluminum surfaces of water-based top coat paint and coatings.
- It is effective on rust.

Areas of Use

- Increases adhesion on metal surfaces of water-based products, provides long-lived applications.
- Before application of Thermal products on Metal Surfaces.
- If the surface has corrosion, use primer before th-513 Galvaniz –Metal Sealer

 $\textbf{Application:} \ \textbf{It is ready for use.} \ \textbf{However; it is diluted by 5\% water in}$

volume at the most, when needed.

Drying Period (20°C): Full drying time is 12 hours. **Consumption:** Approximately 0,150 L/m2 for single coats

Solvent /Cleaning: With water.

Colors: Pink





Heat Insulating Metal Coatings



Marine, Lng Tanks, Trains, Solvent Tanks, Metal – Plastic - GRP Containers, Metal Roofs

Thermal Heat Insulating Metal Coatings can reflect/ dissipating the significant amount of solar radiation (IR) by means of a special type NASA inspired coated ceramic microspheres and reduces the conductive type of heat transfer by a Nano technology based ingredient, which has the lowest conductive value over the world.

This unique technology is also very efficient to prevent the exchange of heat transfer by gas molecules, which is known as Knudsen effect.

Product No:	Products	Description
TH-715	Thermal Hr - 150 Water Based	Water-Borne Heat Insulating Metal coating, based on Acrylic emulsion for exterior and interior Metal surfaces use up to 150 C degree. Extra UV resistant. Extra ordinary thermal barrier property. - Apply direct to metal. Use tanks and pipes lines on chemical plants, Marine industry. Sound and wibration reducer. Anti condensation and stops humidity. Resistance for acid and alkali. Colours: White - Aluminum – Black – Grey – Oxide red
TH-720	Thermal Hr - 600 Solvent Based	Silicone based 1 component solvent born metal coating up to 600C. Curing ;1 hour at 200 C Colours: Aluminum – black – grey
TH-810	Thermal Epoxy Metal Primer 2k Solvent Based Undercoat	TH-810 has a good impact and abrasion resistance properties. It has also very good adhesion to St3 prepared steel substrates coated with an anticorrosive epoxy coating and compatible with most aged coatings. * TH-810 is used to reduce the heat gain and/or loss of metal objects such as metal containers, cabinets, storage tanks, boilers, extruders, metal pipes etc. ** It can be used alone where the gloss or colour is not a major importance. If exposed to sunlight for long terms like 3-5 years, some gloss reduction occurs which does not significantly reduce the thermal insulation property of coating. If these are the important properties beside of thermal insulation, it is recommended to be over coated with DERİN TH-825 Acrylic PU Top coat.
TH-815	Thermal Epoxy Coating 2k Solvent Free	TH-815 is a solvent free epoxy resin based final layer gloss coating. * Excellent Thermal efficiency. It is highly resistant to a lot of chemicals, oil and sea water and corrosion. ** It is used in plants and industrial sites which require chemical resistance (against thinned acids, petrol natural and mineral oils), in concrete, floors, tanks, containers, pipes and trains which require precautions against corrosion. *** it is recommended to be over coated with TH-825 Acrylic PU Top coat.
TH-825	Thermal Acrylic Polyurethane Top Coat 2k Solvent Based	TH-825 Heat Insulating Acrylic PU Topcoat has a very strong impact, abrasion, ultraviolet and weather resistance properties beside of having the best heat insulating coating technology. It has also very good adhesion to St3 prepared steel substrates coated with. * TH-825 is used to reduce the heat gain and/or loss of metal objects such as metal containers, cabinets, storage tanks, same plastics and GRP surface, boilers, extruders, metal pipes, metal military objects and etc. The heat insulating performance difference of this coating can vary between 1° C to 10° C due to the weather or medium temperature faced. An other particular advantage of this coating system is its extremely high anti-condensation property which increase the coating durability performance by reducing water surface condensation which increase of solar power of sun by magnification. **Best Thermal efficiency use TH 815 Epoxy Coating as a undercoat



World Technology, Modern and Permanent Solution!

Thermal coating technology developed in the United States of America by NASA spreads to Canada, Southern america, Australia and Japan within time.

We produce the products, which are also used in Europe, in Turkey since 2005.

What Is Thermal Paint?

Thermal paints are developed by NASA for space shuttles.

Exterior bodies of space shuttles launched to space by NASA consists of large ceramic blocks, which are deflated and vacuumed. These blocks makes heat insulation by providing shuttles to bear heat differences between -250 F and +3000 F (-80 C and +1000 C) in the space and makes heat insulation.

These ceramic blocks size is reduced to micro size for the paint system and we call them Nano Ceramic Micro Spheres.

of solar lights and 80% of UV lights



Thermal paints are new formations in the world.

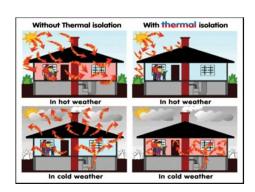
As you know silicone paints came into our lives years ago and they became trend.

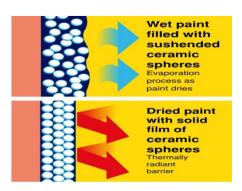
Acrylic and silicone paints in inner and exterior walls rapidly took their place in world market. These products besides having a nice appearance, and thermal insulation also assists water insulation.

market. These products besides making a file appearance, and thermal insulation also assists water insulation.

However; global warning caused new inventions being brough to agenda in the world with energy and cost problems. While amounts spent for natural gas for heating especially in our country increase day by day, we all encounter with electricity bills spent for air-conditioners used for cooling in the summer months. Thermal Coatings do not bur and convey fire.

Every 1°C heat difference in the surface is equal to 10% energy saving.





Roof 50%; It is the only insulation material not letting the sun heating our building from the top all day and cold and rainfall in winter months. Reflection increases as sun rays comes vertically on the surface.

Therefore, Thermal performance of the product increases. It reflects back 95% of sun rays and 80% ultraviolet rays ,n the seasons, when especially sun rays come more vertical, Thermal performance of the product is nearly 50%.

It is quite preferred in African and Middle East markets as well as southern provinces, which have open roofs, terraces. It is ideal for metal factory roofs.

<u>30-50% In Exterior Walls</u>; Heat reflecting in the surface does not penetrate by reflecting back. Hence, while cold weather does not enter inwards in the winter, hot weather does not enter inwards in summer and it prevents heat changes.

Therefore, it provides saving in terms of usage of Air-conditioner as our building will heat less in the summer while providing fuel saving by protecting out building from cold in the winter. Insulation value differentiates in thermal coatings according to the materials used in building walls as it is in all other heat insulation building materials.

<u>30-50% In Interior Walls</u>; Radiant heat hitting on the surface reflects and stays in. Hence, since heat loss inside is less, less heating system is used in the winter and less air-conditioner is used in the summer.





Istanbul Technic University Thermal Conductivity





Thermal Laboratory England



Manchester Salford University Thermal Laboratory



The Diffrence of Thermal Paints

- Low labour cost, easy and fast application.
- Do-it-yourself coating system.
- Also has positive effect on sound insulation.
- Fire retardant up to 1800 C.
- Water based decorative paints lets the walls "Breathe".
- Increases the surface tension and reduces the moisture.
- You can apply to all Silicone and Acrylic paints after appyling Thermal Nano Primer.

Aside being a good paint it also works as a insulator.



Romania/ UN Military Camp Report



Shelter Report







Energy Systems Laboratuary Ist.Yeditepe University



Makine Mühendisleri Odası Raporu



Fire Retardent Report



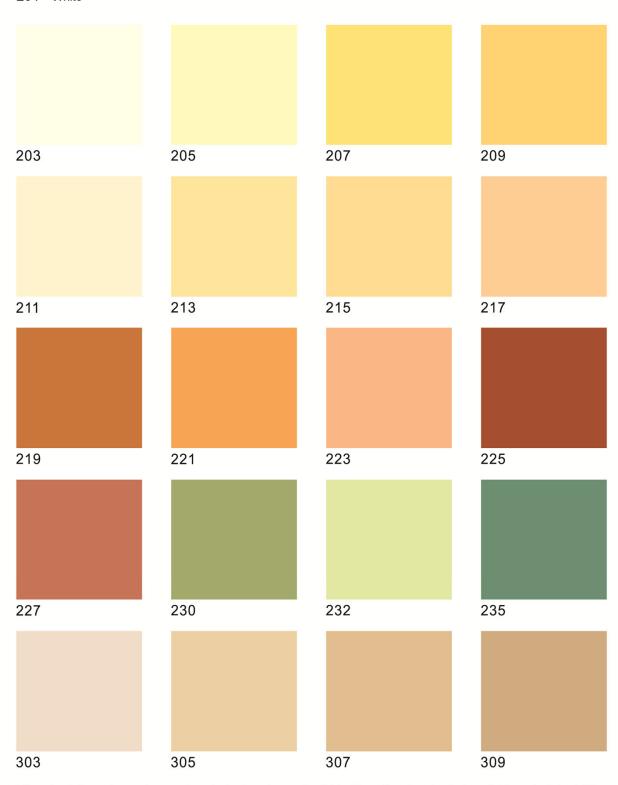




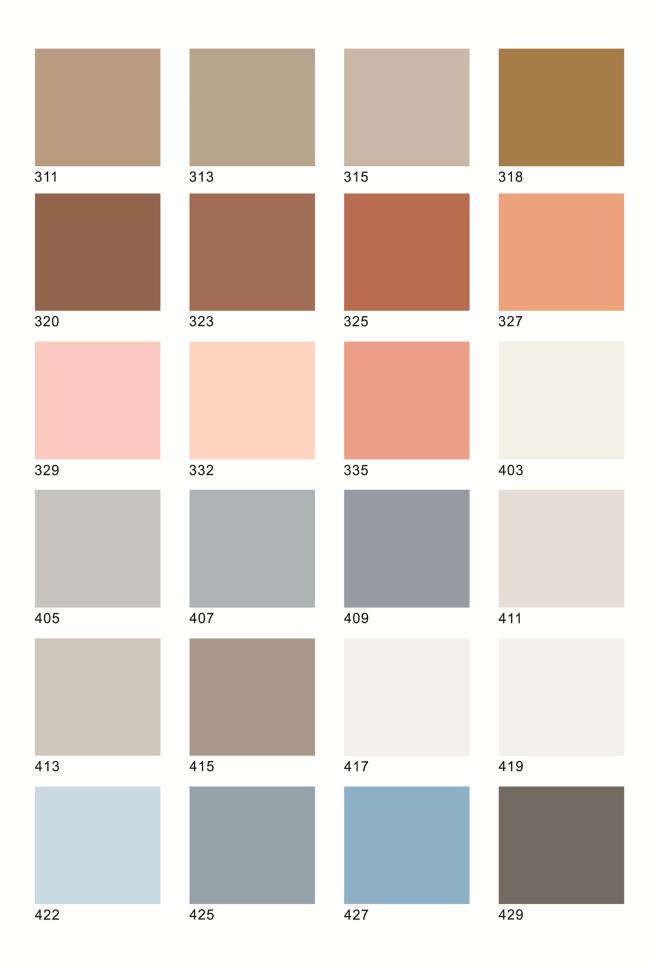
ISO 45001 -2018 ISO 9001-2015 ISO 10002-2018 ISO 14001-2015

Colors

201 - White



^{*} The colors in the catalog are closest to the real color, the colors may be slightly different from the real color due to lighting and printing. 2020

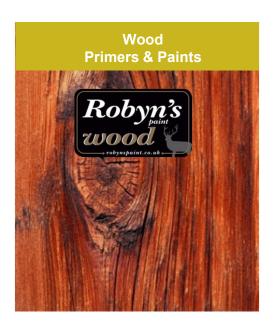




Outher Products

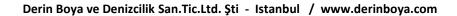














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