



Nano Leather Coating

n-leathcoat_03

Water Repellent | Breathable | Improves Softness | Scratch & Abrasion Resistant | Transparent | Anti-Bacterial & fungal/foul |

Innovation Center for Applied Nanotechnology - I-CanNano™

NANO LEATHER COATING

Based on *Chemical Nanotechnology*, the synthesized product contains specially modified *Functional Nano Particles* that are dispersed in a Solvent Base. Self-organizing Nano components form an invisible layer on the surface with Excellent Water Repellent & Anti-bacterial properties. *n-leathcoat_03* is high performance multifunctional coating with many key functional properties combined together in one coating solution.

Benefits and Advantages

- Water repellent (hydrophobic) and oleo phobic.
- The water rolls-off the surface forming a Brushing Effect (Self-Cleaning Effect)
- Anti-Bacterial / fungal/ foul
- Resists stiffness in leather & improves softness
- Breathable coating i.e. air can pass water cannot pass
- Improves Scratch Resistance
- Improves Abrasion Resistance
- Optically neutral i.e. transparent
- Solvent based product (Not Polymer based), ensuring long life
- Leather being porous material, over a period of time coating penetrates inside & gradually covers the entire leather material
- Easy application through Spray, Brush, dipping etc.
- Material curing at atmospheric temperature.
- Stable at varying Temperatures.
- Low Cleaning and Maintenance Cost.
- Ecologically beneficial and biologically safe.
- Improved life of leather materials



Areas of Application

- Leather Jackets
- Leather Bags
- Leather Seats, Sofas
- Leather Accessories
- Leather Shoes, Suede Shoes etc.



Application Instructions

The product must be used as delivered (The material must not be diluted further).

Cleaning of the Surface

- ✿ It must be ensured that the Surface is free of all loose particles/ Dust etc.
- ✿ Before application the leather Surface must be clean and completely dry.
- ✿ This coating should be applied as final topcoat over leather surfaces.

Application of Coating Solution

- ✿ The material can be applied on the surface by either Spray, Brush, Roller etc. For economy of application, brushing is preferable.
- ✿ Dipping is also possible, however it will increase drying time & application of hot dry air may become necessary.
- ✿ It should be ensured that the material is adequately applied until the surface is saturated (This may vary best on efficiency of applicator).

Curing & Polishing

- ✿ The Coating takes about an hour to completely set. However, this may vary depending on the porosity of leather material & absorption capacity
- ✿ If due to environmental & humidity factor coating does not dry up in 6-7 hours, keep it for few more hours till surface becomes completely dry or apply hot dry air.
- ✿ After curing period, wiping out of excess solvent may become necessary. To retain quality of surface, polishing of surface at least once is recommended. Use soft & dry cloth or tissue paper for this purpose.



Test of Coating

- ✿ After coating the performance can be tested by pouring some water on the coated surface. If properly coated, the water should form droplets and roll-off.

How Nano Leather Coating works?

- Performance of **I-Can™ n-leathcoat_03** is robust due to effects of INORGANIC NANO PARTICLES incorporated in non-polymer based matrix i.e. it is a dispersion of functionalized nano-particles in a solvent base. This solvent acts as carrier for

nano-particles in spreading across the applied surface. Over the curing period nano-particles self-assemble across the surface and binds with the surface. The solvent evaporates over the curing period leaving only INORGANIC NANO PARTICLES that forms a uniform thin layer of 50 - 60 nm over the treated leather surface. Leather being porous material, nano-particles penetrate inside over a period of time and gradually covers both side of the leather material. So, it does not remain as just coating but an integral part of leather material. For this scientific reason, coating improves life of the leather material and the coating would have long life. I-CanNano™ has developed the technology to combine many properties into one nano-particle. Each such nano-particle exhibits property of water/dirt repellency, anti-bacterial/fungal, scratch resistance etc.

- Coating contains functionalized nano-silver that imparts total bacteria-free surface and so prevents from fungus formation & foul smell.
- I-Can™ n-leathkoat_03 is optically neutral i.e. completely transparent and while applied over leather surface, the color of leather surface remains unaltered.
- Improves resistance to scratches & abrasion.

Why I-CanNano™?

I-CanNano™ has indigenously developed robust process technology to manufacture high quality & pure nano-materials with a very wide range. This purity & quality is the key factor for developing high performance coating. I-CanNano™ has also developed the technology/formulation for manufacture of novel coating that incorporates robust property of nano-particles. This ensures robust performance of the nano leather coating.

I-CanNano™ is brainchild of Dr. Arup Chatterjee, a internationally reputed expert Chemical Nanotechnologist from IIT-Mumbai, having one US patent on Fuel Cell electrode and one Indian patent on super-capacitor at his credit. He has indigenously synthesized nano material of several metals/non-metals/oxides/compounds and also nano-alloys. Nano material synthesized by him has already entered into diverse application segments like paints, coatings, catalysts, filters/membranes, energy conservation/storage, cancer research etc.

Nanotechnology is an emerging technology on manipulation of materials at atomic level to achieve targeted property. This technology finds application in almost every discipline of science/engg., life sciences, physics, chemistry, biology etc. Impact of Nanotechnology has been estimated to be 1 trillion US dollar by 2015 (Courtesy: National Science Foundation, USA). It is being said "the next big thing, is really small".

Read carefully:

The information on this data sheet is based on the current status of technical development as well as our experience with the product. However, given the variety of surfaces and ambient conditions, the information provided on this data sheet shall in no way diminish the responsibility of the user to ensure with due care, that our product is suited for the intended purpose, surface and application conditions.

Since application and processing lie outside our purview, no manufacturer liability shall be derived from the information provided herein. Our General Terms and Conditions of business shall apply in all cases.

All information is subject to change without notice.

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