



*The most industry revolutionizing technology on the market for surface restoration and maintenance*

### **Benefits and Instructions for using Hardener and Nano-Guard**

#### **What types of surfaces do you use these 2 products?**

Limestone – Travertine – Concrete – Cementitious Terrazzo only – **Nano-Guard** can be used on Resin Based Terrazzo as the final step

#### **Benefits:**

Creates a stronger, harder, more durable surface

Fills in pore structure of the surface making it more resistant to staining

As a result of the pores being filled in with these 2 products and mechanically polishing it, you use less sealer at the end of your job

Using these in combination with the **Cheetah Pads** and **Monkey Pads** makes it easier to achieve a polish.

Water based products – no harsh chemicals

#### **How does it work?**

These surfaces have calcium in them and the **Hardener** (a lithium silicate densifier) has molecules in it that bond to the calcium in the surface making it stronger, more durable, and easier to bring up to a polish. After the appropriate steps have been taken with the **Cheetahs** to bring it up to a polish, you then use the **11,000 grit Monkey Pad** wet and then apply Nano-Guard (diluted with water). This helps to fill in the microscopic pores in the surface and then you would use a dry 11,000 grit Monkey Pad to “push” the **Nano-Guard** into the surface which helps to create the desired polish and adds additional protection from staining while still allowing the stone to breathe.

#### **How to apply:**

If performing a full restoration you would do your **Cheetah Pads or Pucks Step 1 and 2** and apply the **Hardener** after your Step 2 **Cheetah Pad** grind. Liberally apply **Hardener** (*Hardener comes in a ready to use formula and typically covers approx. 500 sq. feet*) using a soft push bristle broom and move it around keeping the surface wet for 15-20 minutes. Divide your job area into manageable sections to allow for this step. Allow to absorb until it is dry to the touch (approx. 30 – 60 mins.). Repeat **Hardener** application 1-4 times (depending upon porosity and how fast it absorbs). Then allow the surface to cure for a minimum of 4 hours (8-24 hours is optimum). Do not use fans to speed dry. It takes time for the bond between the lithium silicate and calcium to be achieved. You can walk on the surface as long as you broom out any footprints and use walk off mats so that you are not tracking onto other surfaces.

Then proceed with the restoration steps up to the level that you are trying to achieve (for this example we will assume that the highest level of color, clarity, and gloss are trying to be achieved) continue with your step 3 and step 4 **Cheetah Pads**. Use the **11,000 grit Monkey Pad** wet and then apply **Nano-Guard** (*diluted 3:1 with water – typical coverage is approx. 2500 sq. ft.*) Use a soft microfiber flat head mop to apply. You use very little of this product because you do not want it to be a topical coating. *Barely mist* the **Nano-Guard** onto the microfiber and very lightly on the floor to push it into the surface. Allow to dry approx. 30 minutes depending upon weather and temperature and then use a **11,000 grit Monkey Pad dry** to buff off any excess and to push it further down into the pores of the surface. You can use a 175 rpm or higher speed machine for this step. You can re-apply **Nano-Guard** 1-4 times depending upon how fast it is absorbing into the surface. Do not walk on the surface while it’s drying. If the desired finish is not a high gloss you would stop at the desired appearance with the **Cheetah Pads or Pucks** and then finish off with the appropriate **Monkey Pad**.

## Additional information:

Typically due to the porosity of these types of surfaces when light hits them the light is diffused and absorbs into the surface and doesn't reflect back out very well. When you use these 2 products in combination with mechanically polishing them the pore structure is minimized and therefore the light that hits the surface after this process wants to reflect back up and that is what helps to create the polished effect and reflectivity that is achievable out of these surfaces that do not typically polish up like other surfaces.

## Practical application examples:

### Hardener:

Pour a line of **Hardener** across a 10 ft. section approximately 2 ft. away from the edge/wall of surface and spread with a soft bristle push broom. You need to spread it out so that it is evenly covering the surface but not allowing the product to puddle. Keep the surface wet for 15 minutes with each application of the **Hardener**. When the surface is saturated enough it will appear to be gelling on the surface (i.e. push broom lines stay visible for more than 30 seconds.) Wipe up any excess on last application if it doesn't absorb.

### Nano- Guard:

Remember that you want to always use this product diluted 3:1 with water and that you are applying extremely light coats. You do not want to apply heavy and leave on the surface creating a topical coating. Always dry buff the surface after each application with the appropriate grit **Monkey Pad** that corresponds to the gloss level that you want to achieve (i.e. 1500 grit for satin – 3000 grit for high satin – 8000-11,000 grit for high gloss). This dry buffing step does 2 critical things. The 1<sup>st</sup> is that it heats the **Nano-Guard** causing it to rapidly bond stronger to the surface. The 2<sup>nd</sup> is that the dry buffing removes and streaks and creates a highly reflective polished surface.

**Drying:** Do not use fans to speed dry either one of these products

## Needed items:



Hardener Nano-Guard

5" Cheetah Pucks or

17" or 20" Cheetah Pads

17" or 20" Monkey Pads

Floor machine

Micro fiber flat mop heads and handle

Rinse equipment

Push bristle broom



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