



USE OF “DPS” TO IMPROVE Indoor Air Quality (IAQ) and Conserves Energy “A MUST “ FOR ENERGY EFFICIENT BUILDING DESIGN

Moisture Control

Concrete is very porous. It is this property that causes the invasion of moisture into your basement, a phenomenon we call “capillary action”. Our aim is to apply Evercrete DPS which penetrates and chemically reacts with the alkali in the concrete to form tiny crystals that occupy the voids and capillaries and stop the ingress of water. As a result, only a limited amount of moisture and air can pass through, which is healthy for the concrete and house occupant.

Results: Controlled humidity, limits mold growth, better **Indoor Air Quality (IAQ) and Conserves Energy**. If your de-humidifier can collect 1 gallons of water each day, it will cost you 6 KWH in energy consumption. For each KWH of energy produced it also generates 1 kg of carbon dioxide into the atmosphere.

Places of application: All un-treated or un-coated concrete surface, and most concrete surfaces prior to painting or laying tiles. It is a essential supplement to all home improvements and renovation projects.

Damp-proofing Treatment

Concrete is hard but nevertheless very porous. We can prove this phenomenon by dripping water on a concrete surface and almost instantly the water spreads out and is absorbed by the concrete. This is what we call capillary action. By capillary action water travels to a drier area until the whole concrete body is filled with water molecules. In our basement water from the soil is sucked up by the concrete and travels to the inter surface and evaporates almost instantly. *The process will consume heat energy* and that explains why the basement is always **damp and cooler** than upstairs. Not only that **dampness is energy consuming**, it is also a main recipe for **mold grow** and **poor indoor air quality**.

Some families use a **de-humidifier** thought that solve the humidity problem. However if the machine **collects 1-2 gallons of water everyday**, the house or the basement is facing a **serious water leak problem**. Quite different from water leakage that is visible, moisture infiltration is something that should be looked after.

The message we try to bring out is **un-treated concrete, water seepage, moisture in buildings, mold grow, and excess energy consumption** are all closely related.

Mold growth creates pores which is a contaminant for our indoor air. Certain kinds of mold so called mycotoxin are capable of producing toxins that triggers allergies, headaches, asthma, skin rashes and even behaviour changes. Some molds can even invade the body and wreak havoc in the lungs, brain and sinus. The combined effect of the right temperature, certain chemicals and humidity made it an ideal environment for the growth of mold, mildews and other bacteria.

In terms of Energy efficiency

It would take 540 calories to vaporize 1 gram of water, which is equivalent to **970.3 BTU for each 1 lb of water**. If your de-humidifier collects 1 gallon of water per day, it is equivalent to 10 lbs weight of water. **It is estimated that it takes 9703 BTU: (2.84 Kwh) to vaporize 1 gallon of water ***)

Our cost of electricity is Rs: 9/= per Kwh.

If we collect 1 gallon of water everyday, we would have to spend:

Rs:9/= x 2.84 = Rs: 25=56 per day and the amount adds up if some households collects more than a gallon of water on a daily basis. We should count this as a 2 tier process since we have to supply electricity to run the de-humidifier.



In the climate change sense for every Kwh of electricity produced by fossil fuel, it will emit 1 kg of CO₂. Consequently if a family is dumping 1 gallon of water from the de-humidifier everyday, this household is also responsible for dumping 1 ton of carbon dioxide into the atmosphere within a year's time. (1000 kg per ton / 2.84 kHz per day)
Give it a thought!

One-time treatment with warranty can bring you many benefits:

- **Strengthen the structure of walls, basement foundation, and garage and driveway floor**
- **Increase the value of the property**
- **Decrease maintenance costs**
- **Save energy**
- **Save money**
- **Healthy living environment**
- **Protect our environment for our future generations**

Why not contact us to explore more details and advantages!!

Auth. Distributors -



Admin. Office : Patanwalla Estate, Opp. Shreyas Talkies, L.B.S. Road, Ghatkopar (W), Mumbai-400086, India.

☎ : +91 22 25002246 / 25002670 / 25001742. Fax : +91 22 25003254 / 67969486.

✉ : polyflex1@gmail.com • Website : www.polyflex.co.in