

Instant Snow

How much water can this powder absorb?

WHAT TO DO

Place a small spoonful of SAP or Instant Snow powder in a small cup and slowly add water. The powder will absorb the water, swell up and look like crushed ice or snow. Add more water, a little at a time to see how much it can absorb.

WHAT'S HAPPENING?

These super absorbent polymer (SAP) is composed of sodium polyacrylate, a long chain polymer molecule which is extremely hydrophilic, i.e. it attracts water. Even more amazing however, is that it can bond with water molecules and lock them into huge lattice-like structures, absorbing several hundred times its own weight in water. There's 4-5 grams of SAP powder in Pampers diapers (stuck in the cottony fluff in the middle layer), and that's why even a newborn sized diaper can hold as much as 16 ounces of water. The instant snow is exactly the same material, just ground up into a much finer powder which causes it to form smaller molecular structures when it absorbs water, giving it the look and feel of snow. It's actually used in movies when they want snow in a scene without the need for cold temperatures. The chunky crystals are used in moisture-control potting soil that you can buy at most garden supply stores. It absorbs and holds any excess water, then releases it as the soil begins to dry out.