



Understanding Template Assisted Crystallization

Hard water is made up of magnesium and calcium. Magnesium and calcium form limescale, the pesky white spots you see on your glasses and the chalky build-up on your showerheads and in your sink.

TAC changes the structure of magnesium and calcium so that it won't stick to your pipes. It does this by having the magnesium and calcium interact with a media bed prior to flowing through your pipes. Template assisted crystallization works by changing the way that magnesium and calcium interact with surfaces. Magnesium and calcium form micro-crystals that remain suspended in water, not adhering to surfaces. Our filter doesn't actually remove hardness ions like magnesium and calcium. It is an anti-scaling system.

Here's a metaphor that might help: imagine that your pipes are lined with duct tape. The small bits of magnesium and calcium are going to stick to the duct tape. When magnesium and calcium interact with the TAC media, though, they form micro crystals that remain suspended in the water, never interacting with the tape.

Here's a diagram that might make it more clear:

