

Water Drop Test: There does not appear to be any “official” governing standard to this test as it is a superficial surface test only, but still a fast and inexpensive method of determining concrete absorbance.

AC•Tech 2170 requirement: Concrete must be absorbent;

This very simple test will tell you if the concrete substrate is absorbent or not. We require an absorbent substrate for our epoxy moisture system to penetrate into the cap of the concrete to perform properly. If the concrete is non-absorbent, then there will be no penetration and there very likely be bonding issues with the system. It is best to perform this test after mechanical preparation, but may be done prior to check the effectiveness of the prep work.

Procedure:

- Application of single droplets of water onto a concrete surface
- Use groups of approximately 6 water droplets in each part of the floor
- Place the droplets using a ‘dropper’, place them within an area ~4” X 4”
- Always test the center and the perimeter areas of your floor
- Check after floor prep for best rate of absorbency
- Test is a good indication of the surface density and permeability,

If there are any previously applied surface treatments on the concrete cap, such as a curing compound that are still present, a hardening or densifying agent or a silicate-based water vapor system present then our resin floor material will not successfully be able to penetrate into the concrete.

- ❖ Non-absorbent concrete, water drop sits on surface with no penetration – resin systems will not get penetration for proper performance.



Drops on deck



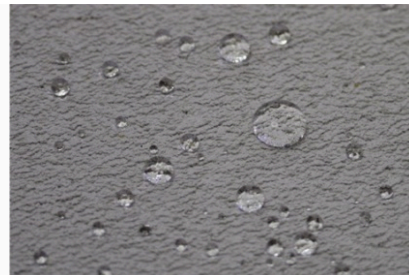
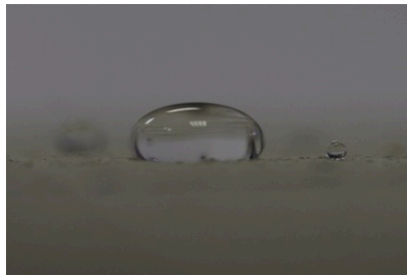
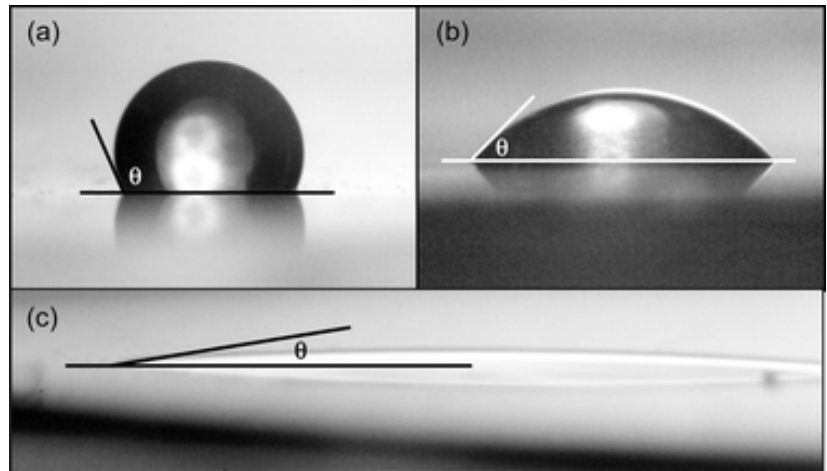
Usual pattern of six droplets

Water Drop Test Results:

No penetration at all; drop just sits on top of the concrete substrate, will not penetrate. This means that there is some barrier preventing penetration.



- a) Non-absorbent after 5 minutes – not good; barrier of some kind on deck; Core to find out what;
- b) Semi-absorbed, increase in diameter – still not so good; heavy shot blast may resolve; or Core;
- c) Absorbed after 5 min, large diameter wet spot: good! Proceed



Non-absorbent concrete: water beads up and will not penetrate. There is some type of sealer or coating that must be removed or identified prior to the application of the AC•Tech 2170™