

Reasons why we don't use Polyurethane

Mudjacking	Polyurethane
Mudjacking material consists of sands, clay, water, and cement powder. Even though it has cement in it, it won't become hard and can be dug into with a shovel if needed. If water is under a pad the material will push the water out the sides or other holes getting rid of the water and doesn't affect the material.	Polyurethane is two chemicals that have to be mixed at the right temperature to make the product that it was intended for. If this doesn't happen or if any foreign products mix with it at this stage it will not allow the product to mix properly. Example: If there is water under the concrete and it comes in contact with the two chemicals before they have reacted.
Mudjacking uses material that is meant to move with the ground to limit the amount of stress on pads.	Polyurethane uses material that is solid which may cause stress on pads with ground movement; pin pointing pressure on pads.
Material doesn't set up right away which allows the concrete to be readjusted if needed in areas if it is over lifted or moves in areas that it wasn't intended to move.	Material sets up right away and is solid. Once concrete is lifted, either over lifted or moves in areas that wasn't needed, chances are it can't be fixed because the material has no flexibility.
Mudjacking material lifts and fills voids to fully support the concrete. A stiff material lifts the pad in place and a slightly wetter material is pumped in to flow around the stiff material and fills voids that were already there or created during the lifting process.	Polyurethane is inconsistent and may not fill all the voids due to the material setting up and not allowing material to get to some areas; this could be a small or large area or the pad has been lifted to the required height and is difficult to try and fill without moving the pad more.
If concrete needs to be lifted again it can be lifted and completely filled again even if its been mudjacked before because the material separates from the pad during the lifting process and then is filled after.	Due to the material being solid it will be hard to ensure the voids are filled if the concrete settles again. The ground below can settle differently then the first time which can cause new voids and also the points made in the box above.
If concrete needs to be removed in the future our material can be left to use as a base material for new concrete or removed and taken to the city landfill as a base material there.	If concrete needs to be removed in the future the polyurethane would need to be taken out before pouring new. In the future, polyurethane material may not be allowed in city landfills, which means added expense for disposal especially if its attached to the removed concrete.

Comparisons

	Mudjacking	Polyurethane
Hole Size	Larger	Smaller
Voids	Filled	Unknown due to fast setting during lift process
Longevity	Due to the ground settling below, no advantage	Due to the ground settling below, no advantage
Material	Foreign materials won't affect. Example: Water under pad	Any foreign materials will affect. Example: Water under pad
Temperature	Cooler or warmer temperatures don't affect the materials being used	The chemical reaction must take place at the right temperature to ensure proper mix reaction
Weight of Material	Heavier – material being heavier doesn't affect job.	Lighter – material being lighter doesn't affect job.
Material Washing Out	Material doesn't wash away	Material doesn't wash away
Curing time (after job)	2-3 days before heavy weight. Example: cars	Can support heavy weight same day
Equipment	Our equipment always stays off of the customers property	Unknown but would imagine they wouldn't need to park on property
Clean up	Material is swept and shoveled up. Then job is washed after to clean up area and then patch holes	The plugs are pulled depending on company may only sweep or may wash also and then patch holes
Landscaping or Surrounding Areas	During lifting process; brick, grass, etc. may need adjusting	During lifting process; brick, grass, etc. may need adjusting

It doesn't matter if you use mudjacking, polyurethane jacking, or go with new concrete; all three processes are meant to shed water away from your property that has gotten moisture under the concrete. Wet ground may cause the concrete to move again in the future no matter which process is used. Drying out the ground below causes the ground to shrink below the lifted or new concrete, which is good because that means the moisture is drying up by your foundation.

Our many years in this business have allowed us to examine the two processes and we hope that this information will help you in deciding what to do about your concrete settlement.