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CUSTOMER HANDBOOK

1st Edition

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Congratulations!

You have chosen Mitten Concrete LLC as your concrete contractor and have recently had concrete poured at your residence. Now you may be wondering: “What next?”. This handbook will walk you through some concrete basics, such as what concrete is made of, how it cures, how long the curing process will take, how to take care of your concrete, concrete sealers, concrete cracking, and some general do-nots for your new concrete. Take note that the focus of this document is to inform you about some basic facts, and some common questions and answers regarding concrete, its placement, and maintenance. **Please refer to your contract for specific warranty and liability information.**

What is concrete made of?

Concrete is made of a few basic materials that, when mixed together in the correct proportions, form a very solid and durable material. The four primary materials are: aggregates (stones of varying sizes), fine aggregates (like sand), water, and cement (note: there are other ingredients used in modern concrete that are outside the scope of this handbook). Concrete forms the foundations of the infrastructure we see all around us and has been a trusted material for centuries. Concrete mixes today can reach incredible strengths and there are now more ways than ever to handle and place this versatile material.

How long does concrete take to cure?

This question is a simple one to ask, but a complicated one to answer. Cure time depends on many variables, such as the mix chosen, the slump the concrete is poured at, the temperature and saturation of the ground, the air temperature, and the thickness of the concrete. But

generally, concrete takes 28 days to reach full strength; maximum strength of typical residential concrete is between 3500 and 4000 PSI.

Typical cure time before you can walk on new concrete after it is poured is 24 hours. Typical cure time for driving cars on new concrete is 2-4 weeks. **Disclaimer:** if your new concrete cracks after driving on it before it has reached its 28-day strength, it will not be covered under the Mitten Concrete LLC warranty.

Concrete maintenance & treatment

Since you've chosen concrete as your paving material, you're in luck! That's because concrete is a very low maintenance material and is known to last decades without any major maintenance. As long as you wait the recommended time before using your concrete, very little needs to be done to maintain it.

Something important to understand about concrete is that it bleaches in color over time. Typically, it takes about a week for concrete to go from a dark gray color to a bright white. During this time, it's important to keep objects off of the concrete while it cures and bleaches out. This minimizes any blotchiness or inconsistencies in the color of your concrete.

However, if you notice your concrete not completely turning white or has slight discolorations, don't panic, this is normal. Just like many factors determine the cure time for your concrete, so it is with how long it might take to bleach out. Not all concrete mixes are created equal, so even things like slight differences in mixture proportions, the use of admixtures, and slightly different environmental conditions can all effect the color of your slab. This does not mean that your concrete is any less strong, durable, or reliable.

Please note that there are a few minor weaknesses concrete has that you need to be aware of. One of those is the fact that concrete is porous. That means it tends to absorb things like liquids over time. This includes liquids that might leave unwanted stains, especially oils and other vehicle fluids. If you want to preserve the appearance of your concrete for years, avoid changing your oil or parking leaking cars on your concrete and have your concrete sealed when it is first poured.

Another thing to be aware of is that concrete and salt do not mix. Most pavement salts and ice melt substances will have warnings on their packaging that warns of this very fact, especially when the concrete is relatively new. Do not salt or use ice melt on your new concrete! This is very important because use of these substances is likely to result in the top of your concrete popping off in places, or spalling. There is no quality aesthetic fix to this issue, so it is best to avoid use of these materials at all costs. Any damage that is a result of salt or ice melt use will not be covered by the Mitten Concrete LLC warranty.

For salt water pool decks, the same principle is true: salt weakens concrete. It is recommended that you let your pool deck concrete cure for at least 3-4 days before using your pool to avoid this issue. Since this form of salt is diluted by water, it is not as potent and destructive to your concrete surface as pavement salt or ice melt. However, we do recommend using a concrete sealer to further protect from this issue. If there is any concrete spalling as a result of the salt in your pool water, it will not be covered by the Mitten Concrete LLC warranty unless all recommendations, as listed above, are followed.

Concrete cracking

There are only two guarantees in concrete: it's going to get hard and it's going to crack. Our job at Mitten Concrete LLC is to provide relief cuts after the concrete is poured to minimize cracks across the surface. This is done by having saw-cutting technicians, trained in the industry standards, insert relief cuts in ideal locations. This, in a sense, encourages the slab to crack down these relief joints in a controlled and regular manner.

In addition to this, it is recommended that wire mesh be used to help reinforce the concrete and help prevent surface cracks that might occur from getting bigger over time. Use of a recommended sealer/hardener can also aid in crack control and concrete strength. However, with all that being said, Mitten Concrete LLC does not guarantee that any given section of concrete flatwork will not crack. It is an inherent and inevitable event that we merely attempt to control.

DO NOT DRIVE HEAVY EQUIPMENT OR HEAVY-DUTY VEHICLES ON YOUR CONCRETE! Residential concrete is poured at a 4" thickness which is plenty strong enough to handle the weight of your everyday driver. However, heavy equipment & heavy-duty vehicles, including but not limited to, skidsteers, loaders, bulldozers, cranes, tractors, semi-trucks, garbage trucks, dump trucks, 1-ton+ rated trucks, RVs, and other large vehicles should be prohibited from driving on your concrete! They can easily crack, break, or cause other unwanted damage to your concrete. So, unless your concrete was poured to handle such heavy loads, keep heavy equipment and heavy-duty vehicles off of it. Any such damage will not be covered by the Mitten Concrete LLC warranty.

Conclusion

We at Mitten Concrete LLC have worked hard over the years to be a trusted and reliable name in the concrete industry and will continue to work hard to provide our customers with the best product we can offer at a fair price. We care about your satisfaction and are happy to provide you with the knowledge and information needed to care for your concrete after your project is complete. If you have any questions or concerns regarding the work provided by us, give us a call at: **(616) 724-9701** and we will be happy to assist you.

We thank you for your business!