

▲ Requirement #5

## HOW TO APPLY A DRIVEWAY SEALER

The homeowner must apply a driveway sealer.



- One of the most economical and easiest methods of sealing is to apply boiled linseed oil thinned with kerosene or mineral spirits, mixed approximately 1 to 1. The mixture is usually applied in two applications by roller, spraying or by a squeegee. Resealing with this boiled linseed oil mixture should be done at least every two years.
- The concrete sealing should be done after approximately 30 days of air drying, when the surface is dry, and preferably when the air temperature is above 70° F.
- It should be noted that some temporary discoloration of the surface may be expected when sealing with a boiled linseed oil mixture.
- Most ready mix concrete suppliers have concrete sealers available or can give instructions where sealers can be purchased.
- A detailed Technical Sheet on Concrete Driveway Sealers is available from the Michigan Concrete Association and its members.



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**The 5  
Requirements  
of  
Residential  
Driveway  
Construction**

# The 5 Requirements of Residential Driveway Construction

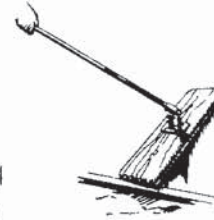
## ▲ Requirement #1 PROPER DRIVEWAY CONCRETE MIX



The driveway concrete mix design must be a minimum 4000 psi at 28 days and properly air entrained concrete meeting the following requirements:

- **Cement** Minimum 564 lbs. per cubic yard or 520 lbs. when a water reducing admixture is used providing that the mix meets local code requirements.
- **Air content as placed** 6-1/2 ± 1-1/2%
- **Slump as placed (stiffness of the mix)** Maximum 5 inch slump. Water reducing admixtures may be used to accommodate easier placement.
- **Aggregates** Coarse aggregate shall meet MDOT specification for 6AA.
- **Evaluation and acceptance** Based on the American Concrete Institute Building Code requirements. Average strength for three consecutive strength tests shall be equal to or greater than 4000 psi and no individual strength test shall be less than 3500 psi at 28 days.

## ▲ Requirement #2 PROPER PLACING & FINISHING



- No finishing operations shall be performed when there is excess moisture or bleed water on the surface. No adding of water to the concrete surface to assist in finishing.
- All concrete must be placed within 90 minutes from the time the truck was loaded. In hot weather the purchaser should shorten the time limit. Prolonged mixing time or waiting time on the job can result in a loss of air content.
- Steel troweling of the concrete surface is not recommended.
- Concrete shall be placed on a properly prepared grade that is uniform in material composition and uniformly compacted. The grade shall be sloped away from the home to assure good drainage. In areas where the subgrade consist of more than one type of clay, a compacted granular subbase may be used to provide uniform slab support.
- Control joints shall be a maximum 10 ft. apart each way, and at least 1 inch deep. A center-line control joint shall be constructed for driveways more than 12 feet wide.
- Isolation joints are only required at existing slabs, buildings, and other fixed objects. Isolation joints shall run the full depth of the slab.
- Reinforcement, such as wire-mesh, is not required if proper jointing procedures are used.
- Dampening of the subgrade is especially important during summer months.
- 4 inch thick driveways are recommended.

## ▲ Requirement #3 SUFFICIENT CURING

Builder/Contractor shall provide sufficient curing for development of the driveway concrete mix's potential strength.



- Strength is essential to the resistance of the concrete to the disruptive effects of freezing and thawing and application of de-icer salts.
- Builder/Contractor shall protect the concrete from the effects of rain and rapid drying.
- Cold weather concreting practices shall be followed for driveways placed late in the fall.

## ▲ Requirement #4 HOMEOWNER CARE

The builder or contractor who contracts with the owner for the driveway shall instruct the owner in the proper care, including sealing, of the driveway.



- Don't drive on new concrete for at least 14 days.
- Don't allow drain water to undermine the slab and cause settlement cracks.
- Don't allow snow and ice to accumulate on the slab during the first winter. Keep it cleaned off.
- Refrain from the use of de-icing chemicals (salt or calcium chloride) for snow and ice removal the first winter. Sand can be used for traction.
- **WARNING** — Never use de-icers containing fertilizer ingredients such as ammonium sulfate and ammonium nitrate. Concrete should also be protected from exposure to liquid fertilizer systems used for lawn treatment.
- **APPLY A DRIVEWAY SEALER** — Michigan is a severe weather region, therefore, it is especially important that concrete driveways be sealed. (See Requirement #5 for details.)