

ITL Reinforced Concrete Roll®

Frequently Asked Questions

GENERAL QUESTIONS

What is the price of ITL RCR®?

The price of ITL Reinforced Concrete Roll® varies according to scope of the project. Give us a call for your personalized quote.

Can I get a sample of ITL RCR®?

We have hydrated and non-hydrated samples of ITL Reinforced Concrete Roll® available. Reach out to us and we will happily get them to you.

How many ITL RCR® product options are there?

There are two options – ITL RCR-7® (7mm thickness) and ITL RCR-12® (12mm thickness). As the ITL RCR-7® is thinner it is best used for limited traffic weight and applications like canal liners or erosion control. For vehicle or equipment traffic (with proper subgrade), ITL RCR-12® offers a solution for temporary roads and drive-over swales.

What are the sizes and weights of ITL RCR®?

Roll sizes have been standardized to 5m wide x 20m long, (16'4" x 65' 7"). ITL RCR-7® weighs 1,700 pounds per roll and ITL RCR-12® weighs 2,800 pounds. Custom sizes can be ordered with additional lead time.

What sort of heat or fire can the ITL RCR® withstand?

ITL RCR® can withstand high temperatures. We have conducted some in-house testing with high-temperature torches as well as molten iron. ITL RCR® is MSHA (Mine Safety and Health Administration) Certified. Give us a call to discuss in greater detail as we are happy to share these findings.

Does ITL RCR® have any resistance to chemicals?

ITL RCR® has a very high level of resistance to many different chemicals. Wherever traditional concrete is used, ITL RCR® can be used as well. Please contact us for specific applications.

Can ITL RCR® be used on a slope?

ITL RCR® is a great product to use for erosion control on slopes of all angles. ITL RCR® will just need to be anchored at the top of the slope or wall. We are happy to provide guidance on use for your project design so don't hesitate to give us a call.

How waterproof is ITL RCR®?

ITL RCR® is compliant within the PN EN 12467:2016-8 5.4.5-6 standard, which means there are no visible drops of water. If 100% water proof is required, ITL can custom fabricate a liner. We would be happy to discuss your project.

How should ITL RCR® be handled and stored?

To off-load, you can use supplied straps. For deployment, ITL RCR® requires a spreader bar complete with a pipe that runs through the center of the core. The rolls spool off very easily. However, prior to deployment, it is critical that ITL RCR® be stored high and dry, either in a warehouse or if stored outdoors, elevated off the ground and completely tarped or covered with plastic to prevent moisture from entering the rolls. Once the roll gets wet, the hardening and curing process starts.

Does ITL RCR® have a shelf life?

So long as the rolls are kept high and dry, there is no expiration date for the ITL RCR®. Once the ITL RCR® is in place and hydrated, we warranty the product for 30 years, pro-rated.

Can ITL RCR® be installed in wet or raining conditions?

Yes. ITL RCR® performs very well in wet conditions and as an example, it can be deployed under water. The standard curing process is 28 days dependent on water temperatures.

Can ITL RCR® be installed in cold or hot climates?

Ambient conditions such as temperature, sunlight, and humidity can affect curing times for ITL RCR®. Installing in extreme heat will require additional water to adequately hydrate the ITL RCR®. Installing in below freezing temperatures is not recommended. Once in place and hydrated ITL RCR® can withstand extreme temperatures both cold and hot. If you have a time-sensitive project, give us a call to discuss in more detail as we are happy to help you design your project.



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What is the warranty for ITL RCR®?

We offer a 30-year pro-rated warranty on ITL Reinforced Concrete Roll®.

Does ITL RCR® require any maintenance once installed?

ITL RCR® does not require any regular or routine maintenance.

Can ITL RCR® crack?

Small hairline cracks will form but they can't be seen because of the fibers covering the concrete. ITL RCR® will not develop large cracks because the fibers keep the concrete from separating.

How can ITL RCR® be removed?

The best way to remove ITL RCR® is to use a concrete saw to cut the product into pieces. Using a jackhammer won't work as well because the fibers keep the pieces together. You will need to cut through the fibers for complete separation of the pieces.

Is there such thing as over or under hydrating ITL RCR®?

Applying too much water is not an issue. You can even submerge ITL RCR® under water and it will cure. Under-hydrating is a much bigger concern. It's important to apply at least the recommended amount of water. For hotter climates, more water will be required. Slopes also require more hydration because the water will run off the slopes before being fully hydrated.

How do you connect multiple pieces of ITL RCR®?

Simply overlap the ITL RCR® approximately 150mm (6 inches) and hot torch the two pieces together. It's very quick and easy. You can also butt the ITL RCR® together, side by side with no overlap if small gaps are acceptable for your application.

What sort of anchorage do I need for the ITL RCR®?

This answer varies and is dependent on the length of slope and steepness of the project. Sometimes no anchorage is needed at all, but typically some sort of anchorage is recommended. From anchor stakes, earth anchors, landscaping staples, or a trench 12 inches deep and 12 inches wide, we can help you determine the right anchorage for your project.

Can ITL RCR® be cut and fitted around penetrations?

Yes. Virtually all penetrations can be sealed around.

Does ITL RCR® have any restrictions for handling?

There are some restrictions. Most importantly personal safety equipment should be worn to ensure injury to yourself or others is avoided at all costs. An engineered and certified spreader bar is required along with a schedule 80, 3" diameter steel pipe through the center core of the ITL RCR®.

Can I buy the ITL RCR® in any color?

We stock light gray at all three strategically located facilities in Ohio, Texas, and Washington State. For larger projects with longer lead times, we can order other colors. Give us a call.

EROSION CONTROL/SLOPE PROTECTION QUESTIONS

Is ITL RCR® biodegradable?

No. The non-woven geotextile that holds the cement in place will eventually degrade under constant UV exposure, but the concrete will last for many years. We also offer a 30 year warranty.

Will vegetation grow through ITL RCR®?

In general no. In some cases, if the ITL RCR® cracks there is a chance vegetation can grow through in time.

What sort of slope can ITL RCR® be applied?

ITL RCR® can go on virtually any slope, almost vertical. The anchoring at the top will be designed based on the slope and subgrade under the ITL RCR®. This is part of the design process and will require more details. Please call us to discuss.

How does constant water flow affect ITL RCR®?

Go to our download center to see the specification. In short, most water applications have little to no effect on ITL RCR®.

U.S. Distribution Centers





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CHANNEL LINING/IRRIGATION CANAL QUESTIONS

Do I need to prepare the subgrade for an existing canal?

Depends. Once ITL RCR® is in place and hydrated, the hardened surface will contour the subgrade. You can leave existing concrete in place with larger cracks. Larger voids greater than approximately 6 inches round/square should be filled with sand or soil of some sort to bridge the gap. We do suggest vegetation be removed and larger rocks bigger than one inch be removed to provide a smoother finished surface.

Can ripples or rapids be added to modify the water flow?

Yes, ITL RCR® is very moldable and you can easily add rapids to modify the flow.

How difficult is it to go around bends and turns in the canal?

ITL RCR® can easily be cut and fitted to create pie shaped pieces to smoothly transition around bends and curves.

How would I attach to inlet or outlet gates, pipes or overflow swales?

Using stainless steel flat bar and stainless-steel anchor bolts every 6 inches, you can easily achieve a leak tight seal to existing concrete gates or pipe penetration aprons. If your canal is soil based, using a small trench also works very well. We can cut and fit smaller pieces around any penetration to create a tight seal to the penetration and main irrigation canal. ITL RCR® is a perfect application for overflow swales.

How do I attach ITL RCR® to other existing liner products?

We can figure out the best method when attaching ITL RCR® to existing concrete, plastic liners, bituminous liners, soils, etc. Contact us to discuss the best method.

CONTAINMENT POND/CEMENT WELL QUESTIONS

Do I need to prepare the subgrade for a pond application?

Some preparation is required for a pond liner application. We have a standard subgrade preparation manual for your reference. Once ITL RCR® is in place and hydrated, the hardened surface will contour the subgrade.

How difficult is it to form fit into the corners?

ITL RCR® can easily be cut and fitted to smoothly transition around corners.

How would I attach to pipe penetrations or overflow swales?

ITL RCR® attaches to pipe penetrations in a very similar manner as normal geomembranes. Using stainless steel flat bar and stainless-steel anchor bolts every 6 inches, you can easily achieve a tight seal to concrete aprons. A typical anchor trench is used to hold ITL RCR® in place. We can cut and fit smaller pieces around any penetration to create a tight seal to the penetration and main irrigation canal. ITL RCR® is a perfect application for overflow swales.

How do I attach ITL RCR® to other existing liner products?

We can figure out the best method when attaching ITL RCR® to existing concrete, plastic liners, bituminous liners, soils, etc. Contact us to discuss the best method.

Will the finished product provide a leak-tight pond?

No. There will be some very minor seepage, not leakage. The difference is that it's a very slow process and the result does not erode the underlying subgrade. If you are storing hazardous chemicals or other product that you don't want to contaminate the soils below, we recommend the purchase of a liner from us which would be placed below the ITL RCR®. This is a very simple process. <u>Please call us to discuss further.</u>

