



ITL Reinforced Concrete Roll®

ITL RCR® Solutions

UNROLL AND GO IN A FRACTION OF THE TIME.



Erosion Control



Irrigation Canal



Containment Pond

Efficient and cost effective.

ITL Reinforced Concrete Roll® is a dry powdered concrete that is encapsulated between two pieces of non-woven geotextile. When rolled out and hydrated, it takes shape into a durable structure suitable for reinforcement or protective lining at a fraction of the installation time of conventional concrete pours.

CEMENT-SAND MIX

Within 3-5 hours, ITL Reinforced Concrete Roll® can be walked on, and within 28 days it's cured and reached maximum compression strength. It's a game changer for conventional projects and remote locations.

GEOTEXTILE

One side of ITL RCR® is made up of Polypropylene (PP), a 6-ounce, non-woven geotextile. The other side of ITL RCR® is a composite of 6-ounce non-woven PP and 4.5 ounce calendered non-woven PP that is needle-punched together.

SIZE

Standard roll size is 16' 4" wide x 65' 7" long, or 1,076ft². Each roll weighs 2,800 pounds or 1,300 kg.

The certified quality of our product also enhances on-site construction safety.

EROSION CONTROL

Where conventional concrete is cost prohibitive, ITL Reinforced Concrete Roll® provides a flexible solution that exceeds performance expectations and longevity compared to concrete erosion control options.

CHANNEL LINING/IRRIGATION CANALS

ITL Reinforced Concrete Roll® is making channel lining and repairs far less intensive than conventional cement repairs. After rolling out, securing, and then hydrating, ITL RCR® can be used within hours.

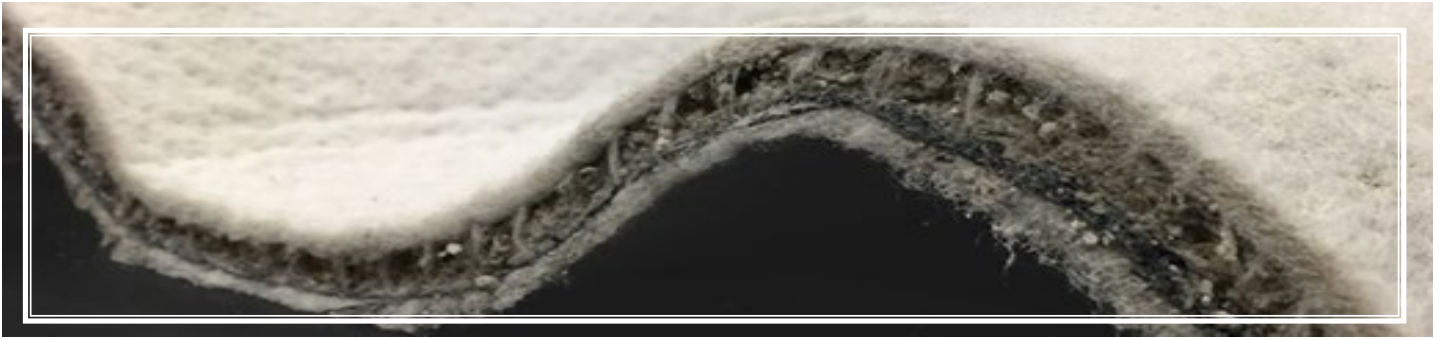
CONTAINMENT PONDS/CEMENT WELLS

ITL Reinforced Concrete Roll® can be unrolled through standing or running water and will cure to meet structural integrity requirements for strength and impermeability.

U.S. Distribution Centers

Moses Lake, Washington | Fostoria, Ohio | Odessa, Texas
www.itlrcr.com | 1 (800) 346-7744

ITL Reinforced Concrete Roll®



TECHNICAL DATA

		ITLRCR®
		Roll Width/Length - 16' 4" x 65' 7"
		Total Coverage = 1,076 ft ²
Properties of geotextile	Test Method	Results
Carrier Layer - PP Nonwoven Composite	ISO 9864	10.3 oz/yd ²
Cover Layer - PP Nonwoven	ISO 9864	5.9 oz/yd ²
Properties of concrete	Test Method	Results
Chemical Composition	XRF Spectroscopy	Sand-Cement Mix
Setting start	PN-EN 196-3	> 90 minutes
Properties of ITL RCR®	Test Method	Results
Thickness of RCR-12®	ASTM D5199	0.5 inches
Thickness of RCR-7®	EN 12467:2016-8 5.3	0.3 inches
Weight of RCR-12®	Certified Trade Scale	2,850 lbs/roll
Weight of RCR-7®	Certified Trade Scale	1,700 lbs/roll
Properties of ITL RCR® - Before Hydration	Test Method	Results
Tensile Strength MD/CMD	ISO 10319	≥ 14,750 / 14,750 lbs/ft ² (± 10%)
CBR Puncture Strength	ISO 12236	≥ 2,200 lbs/ft ² (± 10%)
Properties of ITL RCR® - After Hydration	Test Method	Results
Manning's <i>n</i> - Determination by Trapezoidal Channel	ASTM D6460	0.022
Abrasion Resistance/Mass Loss	ASTM C1353	0.18 oz
Compressive Strength - 24 hour cure	ASTM C109	5,303 psi
Compressive Strength - 7 day cure	ASTM C109	6,823 psi
Compressive Strength - 28 day cure	ASTM C109	7,222 psi
Puncture Strength	ASTM D4833	280 lbs
	ASTM D5494	3782 lbs
Flexural Strength	ASTM D8058	MD = 578 psi
	ASTM D8058	TD = 538 psi
	ASTM D6768	MD = 207 lbs/inch
Tensile Strength	ASTM D6768	TD = 255 lbs/inch
	ASTM D4595	MD = 189 lbs/inch
	ASTM D4595	TD = 228 lbs/inch
Reaction to Fire	PN EN 12467:2016-8 5.6	B,s1,d0
ITL RCR® Certification	Test Method	Acceptance Number
U.S. Department of Labor	Acceptance of Flame-Resistant Solid	MSHA IC-375/01
Mine Safety and Health Administration	Products Taken into Mines	

Contact us for a free product sample!

Leo Cortez
 Product Manager
 Phone: (509) 770-0602
 Email: leoc@inlandtarp.com
 Learn more at itlRCR.com

PREMIUM QUALITY. BUILT TO LAST.
 OVER 40 YEARS OF PROVIDING QUALITY PRODUCTS.

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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. The ITL RCR-12® is more robust and can handle much heavier traffic loads and applications like access roads to project and mine sites.

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. [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 once hydrated and cured? See more in the ITL Reinforced Concrete Roll® technical data on the [Downloads & Photo Library](#) page or ask us about the results of our in-house testing.

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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Frequently Asked Questions

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 carbide tip saw or Sawzall 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 or landscaping staples or a trench 12 inches deep and 12 inches wide. We can help you determine the right anchorage for your project. [Just give us a call.](#)

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.

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.

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.

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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®?

See our product technical data. In short, most water applications have little to no effect on ITL RCR®.

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. [Give us a call.](#)

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. [Please call us to discuss further.](#)

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ITL Reinforced Concrete Roll®

Safety Data Sheet

Trade name: ITL Reinforced Concrete Roll®
Product use: Ground structure reinforcement or protective liner.
Uses advised against: Not relevant.
Distributor: Inland Tarp & Liner®

4172 N. Frontage Road East
Moses Lake, WA 98837
Call (800) 346-7744

Use: ITL Reinforced Concrete Roll® is mechanically bonded composite, consisting of concrete mix, embedded and fixed between two layers of geo-textile.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifier/Trade Name:** Concrete Mix

1.2 **Relevant identified uses of the substance or mixture and uses advised against**

Product use: filling for ITL Reinforced Concrete Roll®
Uses advised against: Not relevant.

1.3 **Details of the Supplier:**

Inland Tarp & Liner®
4172 N. Frontage Road East
Moses Lake, WA 98837
Call (800) 346-7744
www.itlrcr.com
sales@inlandtarp.com

1.4 **Emergency Telephone Number:** 911

SECTION 2. HAZARDS IDENTIFICATION


2.1 **Classification of the substance or mixture:** Classification according to Regulation (EC) No 1272/2008 [CLP]

Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H335

Additional information:

- Full text of the hazard statements and EU hazard statements is listed in Section 16.
- When cement/binding agent comes into contact with water or becomes damp, a strong alkaline solution is produced. Due to the high alkalinity, wet cements/binding agents may provoke skin and eye irritation.

2.2 **Label Elements 1272/2008 CLP:**

Hazard pictograms:	
Signal word:	Danger
Hazard statements:	<ul style="list-style-type: none"> • H315 Causes skin irritation. • H318 Causes serious eye damage. • H335 May cause respiratory irritation.
Precautionary statements:	<ul style="list-style-type: none"> • P28 Wear protective gloves/protective clothing/eye protection. • P305+P351+P338 and P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. • P302+P352 and P333+P313 IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. • P261 and P304+ P340 and P312 Avoid breathing dust. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. • P501 Dispose of contents/container to suitable waste collection points.

2.3 Other hazards

Cement/binding agent does not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation (EC) No 1907/2006.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: Not applicable, as these products are mixtures, not substances.

3.2 Mixtures

Constituent	Index number	CAS No.	EC No.	Concentration Range (M. %)	Classification according to (EC) No. 1272/2008 (CLP)	
Portland cement	-	65997-15-1	266-043-4	1-50	Eye Dam. 1	H318
					STOT SE 3	H335
					Skin Irrit. 2	H315
					Skin Sens. 1B	H317
Sulfuric aluminate	-	65997-15-1	266-043-4	1-50	Eye Dam. 1	H318
					STOT SE 3	H335



ITL Reinforced Concrete Roll[®]

Safety Data Sheet

belit cement					Skin Irrit. 2	H315
					Skin Sens. 1B	H317

Portland cement clinker is, according to Art. 2.7(b) and Annex V.10 of EC Regulation 1907/2006 (REACH), exempt from the registration requirement.

The product contains chrome-reducing additives, which causes the cement to not be classified as sensitizing (R43) - more info in 15.1 section

3.3 Additional information: See full text of H-phrases in chapter 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

Following eye contact: Do not rub eyes as mechanical stress may cause additional damage to the cornea. Where applicable, remove contact lenses and immediately rinse the eye, while open, under running water for at least 20 minutes in order to remove all particles. If possible, use isotonic eye-cleansing solution (0.9 % NaCl). Always consult an occupational physician or ophthalmologist.

Following skin contact: Remove dry cement/binding agent and rinse abundantly with water. Rinse wet cement/binding agent with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean these thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns.

Following inhalation: Seek fresh air. Dust should quickly be removed from throat and nose. Consult a physician, should symptoms such as discomfort, coughing or persistent irritation occur.

Following ingestion: Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact the poison control center.

4.2 Most important symptoms and effects, both acute and delayed:

Eyes: Eye contact with cement/binding agent (dry or wet) may cause serious and potentially irreversible eye damage.

Skin: Sustained contact with cement/binding agents may cause irritation on damp skin (due to sweating or humidity). Contact of cement/binding agents with damp skin may cause skin irritation, dermatitis or severe skin damage.

Inhalation: Repeated inhalation of large amounts of cement/binding agent dust over a long period of time increases the risk of developing lung diseases.

Environment: Under normal use, cement/binding agents are not hazardous to the environment.

4.3 Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media: Cement/binding agents are not flammable.

5.2. Special hazards arising from the substance or mixture: None

5.3. Advice for firefighters: No special measures are required, as cement/binding agents do not pose any fire-related hazards.



ITL Reinforced Concrete Roll[®]

Safety Data Sheet

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: Wear protective equipment as described in Section 8. Follow the advice for safe handling and use given in Section 7.

6.1.2 For emergency responders: Emergency action plans are not required. However, respiratory protection is needed in situations with high dust levels.

6.2. Environmental precautions: Cement/binding agents should not penetrate the sewage water system, surface water or groundwater.

6.3. Methods and material for containment and cleaning up: Absorb spilled cement/binding agent and reuse, if possible. Where possible, use dry methods to clean, such as vacuum exhaust (portable devices with highly efficient filter systems (EPA and HEPA filters, EN 1822-1:2009) or equivalent techniques), which do not generate dust formation. Never use compressed air for cleaning. If dust is formed applying a dry cleaning method, personal protective equipment must be used. Avoid inhalation of cement/binding agent dust and skin contact. Place spilled material into a container for potential subsequent use.

6.4. Reference to other sections: See Sections 8 and 13 for further details.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1 Protective measures:

- Follow the recommendations as given in Section 8.
- To clean up dry cement/binding agent, see Subsection 6.3.

Measures to prevent fire: Not applicable.

Measures to prevent aerosol and dust generation: Do not sweep. Where possible, use dry methods for cleaning, such as vacuum exhaust, which do not generate dust formation.

Measures to protect the environment: No special measures required.

7.1.2 Advice on general occupational hygiene: Do not eat, drink or smoke when working. Wear dust respirator and protective goggles in dusty environment. Use protective gloves to avoid skin contact.

7.2. Conditions for safe storage, including any incompatibilities: The product should be stored in ventilated, dry place protected against moisture, dirt and mechanical and chemical damage, as well as away from the fire. Opening the package should be carried out in accordance with the instructions. It is recommended that the equipment storage rooms have carbon dioxide fire extinguishers, foam and powder and sprinkler or sprinkler water.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Component	CAS No.	Value/unit
Dust of Portland cement and metallurgical cement	65997-15-1	
Total dust	NDS	6 mg/m ³
Respirable dust	NDS	2 mg/m ³

- DNEL / DMEL values are not available / PNEC values are not available

8.2 Exposure controls: To comply with occupational exposure limits, combinations of technical and/or individual protective measures are often required. If no adequate workplace measurements are available for exposure, an exposure assessment and selection of appropriate protective measures based on the MEASE tool (Reference 3) may be carried out. Engineering controls (Table in 8.2.1) and individual protective measures (Table in 8.2.2) are recommended for the identified uses in the professional sector (Subsection 16.3). In this context, option A can only be combined with A, and B can only be combined with B. Furthermore, it must be taken into consideration that the indications apply to a continuous exposure of 8 hours per day and 5 days per week.

The product shall only be used outdoors or in well-ventilated rooms, and personal protective equipment shall be worn (general indications in Subsection 8.2.2).

8.2.1 Appropriate engineering controls: Use adequate ventilation in a closed room. Provide eye wash station.

8.2.2 Individual protection measures, such as personal protective equipment:

General information: Do not eat, drink or smoke when working. Avoid contact with eyes and skin. After work with cement/binding agent, workers should wash or shower. Clean contaminated clothing, footwear, watches, etc. thoroughly before re-using them.

Eye/face protection: Use tight-fitting safety goggles according to EN ISO 4007:2012 and EN 166:2005.

Skin protection: Wear waterproof, abrasion and alkali-resistant gloves. Leather gloves are not suitable due to their water penetrability and can release chromate-containing compounds. For handling cement/binders, special gloves for chemicals (CAT. III) are not required. Investigations have proven that nitrile impregnated cotton gloves (layer thickness of about 0,15 mm) provide sufficient protection over a period of 480 minutes. Change soaked gloves. Have spare gloves ready. Skin protection according to EN 943-1:2005, EN 943-1:2005.AC:2006 and gloves according to EN 374-1:2005.

Respiratory protection: In case of work in a room with insufficient ventilation, use respiratory protection respirator P1 or P2. Respiratory protection according to EN 133:2005.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- (a) **Appearance:** Gray powder
- (b) **Odor:** Odorless
- (c) **Odor threshold:** No odor threshold, odorless
- (d) **pH:** 10-11
- (e) **Melting point / freezing point:** > 1300 °C
- (f) **Initial boiling point and boiling range:** Not applicable
- (g) **Flash point:** Not applicable
- (h) **Evaporation rate:** Not applicable
- (i) **Flammability (solid, gas):** Not applicable
- (j) **Upper/lower flammability or explosive limits:** Not applicable, as it is not gaseous
- (k) **Vapor pressure:** Not applicable
- (l) **Vapor density:** Not applicable
- (m) **Relative density:** 1,6 (1 = water)
- (n) **Solubility(ies):** Not applicable
- (o) **Partition coefficient:** n-octanol/water: Not applicable
- (p) **Auto-ignition temperature:** Not applicable
- (q) **Decomposition temperature:** Not applicable
- (r) **Viscosity:** Not applicable, as it is no liquid
- (s) **Explosive properties:** Not explosive and not pyrotechnical. No gas development or self-sustaining exothermic chemical reactions.
- (t) **Oxidizing properties:** Not applicable, as cement/binding agent has no oxidizing properties.



ITL Reinforced Concrete Roll[®]

Safety Data Sheet

9.2 **Other information:** Not applicable

SECTION 10. STABILITY AND REACTIVITY

- 10.1 **Reactivity:** Cement/binding agent is a hydraulic material. When mixed with water, an intended reaction takes place. As a result, cement hardens and forms a solid mass, which does not react with its environment.
- 10.2 **Chemical stability:** Properly stored dry product is stable and can be stored with most other building materials.
- 10.3 **Possibility of hazardous reactions:** Not applicable.
- 10.4 **Conditions to avoid:** Moisture during storage can lead to lumping and loss of product quality.
- 10.5 **Incompatible materials:** Not applicable.
- 10.6 **Hazardous decomposition products:** Not applicable.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

- **Acute toxicity:** Based on available data, classification criteria are not met.
- **Skin corrosion/irritation:** It irritates the skin.
- **Serious eye damage/irritation:** It irritates the eyes.
- **Respiratory or skin sensitisation:** Based on available data, classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, classification criteria are not met.
- **Carcinogenicity:** Based on available data, classification criteria are not met.
- **Reproductive toxicity:** Based on available data, classification criteria are not met.
- **Specific target organ toxicity - single exposure:** May cause respiratory irritation.
- **Specific target organ toxicity - repeated exposure:** Based on available data, classification criteria are not met.
- **Aspiration hazard:** Based on available data, classification criteria are not met.

Effects of local health exposure:

- **Eye contact:** Irritation, redness, tearing, burning, conjunctivitis.
- **Skin contact:** Itching, local redness, drying, peeling, cracking, ulceration, primary and purulent osteitis, eczema.
- **Ingestion:** Damage to the gastrointestinal mucosa, vomiting and diarrhea may occur.
- **Inhalation of dust:** Can cause rhinitis, throat irritation, cough, dyspnea. This product contains cement which can cause irritations, redness and even burns when in contact with damp skin and mucous membranes.

SECTION 12. ECOLOGICAL INFORMATION

- 12.1 **Toxicity:** This product does not show any hazardous properties for the environment.
- 12.2 **Persistence and degradability:** No data available.
- 12.3 **Bio accumulative potential:** No data available.
- 12.4 **Mobility in soil:** No data available.
- 12.5 **Result of PBT and vPvB assessment:** Not applicable, as cement/binding agent is an inorganic mineral material. After hydration, residual cement/binding agents present no toxicological risk.
- 12.6 **Other adverse effects:** No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods:** Do not enter drains. Do not allow contamination of ground and surface water. Hardened product treated like construction rubble.

SECTION 14. TRANSPORT INFORMATION

Cement/binding agent is not subject to the international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). Therefore, no dangerous goods classification is required.

- 14.1 **UN numer:** Not applicable.
- 14.2 **UN proper shipping name:** Not applicable.



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Safety Data Sheet

- 14.3. **Transport hazard class(es):** Not applicable.
- 14.4. **Packing group:** Not applicable.
- 14.5. **Environmental hazards:** Not applicable.
- 14.6. **Special precautions for user:** Not applicable.
- 14.7. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable.

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation (EC) 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/796 / EEC and Commission Directive 91/155 / EEC, 93/67 / EEC and 2000/21 / EC (OJ L 396 of 30 December 2006) as amended.

Act of 25 February 2011 on chemical substances and their mixtures (OJ.2011.63.322).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on the classification, labeling and packaging of substances and mixtures.

Regulation of the Minister of Health of 10 August 2012 on the criteria and classification of chemical substances and mixtures thereof (OJ 2012.0.1018).

Regulation of the Minister of Health of 20 April 2012 on the labeling of packaging of dangerous substances and mixtures of dangerous substances and certain mixtures (OJ 2012.0.445).

Regulation of the Minister of Labor and Social Policy of 29 November 2002 on the highest permissible concentrations and intensities of agents harmful to health in the working environment (OJ 2002.217.1833) as amended.

Regulation of the Minister of Economy of 21 December 2005 on essential requirements for personal protective equipment (OJ 2005.259.2173).

Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the occurrence of chemical agents in the workplace (OJ 2005.11.86) as amended.

Law of 19 August 2011 on the transport of dangerous goods (OJ.2011.227.1367).

Act of 27 April 2001 on waste (Dz.U.2001.62.628) as amended.

Act of 11 May 2001 on packaging and packaging waste (Dz.U.2001.63.638) as amended.

Ordinance of the Minister of the Environment of 27 September 2001 on the waste catalog (OJ 2001.112.1206).

Government Declaration of 26 July 2005 on the entry into force of amendments to Annexes A and B to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) signed at Geneva on 30 September 1957 (OJ 2005.178.1481), as amended.

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR Agreement 2011-2013).

Regulation of the Minister of Labor and Social Policy of 14 March 2000 (OJ No. 26, item 313) on occupational safety and health in manual transport work.

Regulation of the Minister of Health of 2 February 2011 on the measurement of factors harmful to health in the workplace (OJ 2011.33.166).

According to Annex XVII Paragraph 47 of EC Regulation 1907/2006 (REACH), the marketing and use of cements and cement-containing preparations is subject to restriction:

1. Cement and cement-containing mixtures shall not be used or placed on the market if they contain, when hydrated, more than 0.0002% soluble Chromium(VI) of the total dry weight of the cement.
2. If reducing agents are used, then, without prejudice to the application of other Community provisions on the classification, packaging and labeling of dangerous substances and mixtures, suppliers shall ensure, before placing on the market, that the labeling of cement and cement-containing mixtures is clearly readable and durably indicating when the product was packaged and under what conditions and for how long it can be stored without the effect of the reducing agent decreasing and the content of soluble Chromium(VI) exceeding the limit value specified in Number 1.
3. By way of derogation, Numbers 1 and 2 shall not apply to the placing on the market with regard to wellcontrolled, closed and fully automated processes, and to use in processes, in which cement and cementcontaining mixtures are handled solely by machines and in which there is no possibility of contact with the skin.

15.2 Chemical Safety Assessment: No Chemical Safety Assessment has been carried out for this substance/ mixture by the supplier.

SECTION 16. OTHER INFORMATION

Relevant H-statements (number and full text) and acronyms of symbols, hazard classes and category codes listed in Section 3.:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation. <i>EUH203 Contains Chromium(VI). May produce an allergic reaction.</i>
Eye Dam. 1	Serious eye damage / eye irritation, hazard category 1.
Skin Irrit. 2	Skin irritation, risk category 2.
STOT SE 3	Toxicity to target organs - single exposure, hazard category 3, respiratory irritations.
Skin Sens. 1B	Skin sensitization, risk category 1B.

Non-woven polypropylene

1. Identification of the product: Composition / information on ingredients:

Component	CAS No	Proportional content
PP – (Poly) propylene	9003-07-0	98,8-99,4
Fatty acids and / or esters	mixture	0,4-0,8
Pigment: Tytanium carbon	13463-67-7	0,2-0,4

Identification of threats: Not classified as dangerous or poses a danger during use. Rational use and handling of the product does not have any harmful effect on the human body. From the hygienic point of view, the product is safe for health and has been classified as harmless to humans according to EEC criteria.

2. **Potential health risks:**

- **Skin:** Not identified significant health risks. Particles or fibers may cause slight discomfort similar to rub the skin with sand.



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Safety Data Sheet

- **Eyes:** Not identified significant health risks. Particles or fibers may cause slight discomfort such as dust enters the eye.
- **Inhalation:** Does not provide for any impact under normal conditions of use. However, when high-temperature heat treatment may produce irritating fumes and vapors nose and throat.
- **The digestive system:** Not applicable.

3. First Aid:

- **Skin:** Wash with soap and water. If irritation persists, seek medical attention.
- **Eyes** - In case of irritation flush eyes with running water for 15 minutes. If irritation persists, consult a physician.
- **Inhalation** - If there are adverse effects associated with secreted vapors of nonwovens during thermal processing, remove the victim to fresh air. If irritation persists, consult a physician.
- **The digestive system** - not applicable.

4. Firefighting

Major fire hazards - (Poly), propylene exposed to fire burns.

Fire hazards and toxicity:

- Evolution of large quantities of smoke and heat during the combustion process. Noxious gaseous components of combustion products is mainly carbon monoxide and carbon dioxide.
- Reduce the oxygen concentration in the area where the fabric burns.
- Loss of visibility in the areas covered by fire.

Extinguishing Media:

- Heavy foam

Extinguishing media to extinguish fires: Powders- Carbon dioxide extinguishers

5. Accidental release

Prevention:

- Remains on the floor can be slippery. Keep workplace clean.
- Environmental protection: Remnants of material should be disposed of according to clause 13 of the Charter Product Safety Data.

6. Transport and Storage

The product should be stored in a ventilated, dry facility protected against moisture, dirt and mechanical and chemical damage, as well as away from fire. Opening the package should be carried out in accordance with the instructions. It is recommended that equipment in product storage rooms include carbon dioxide fire extinguishers, foam and powder and sprinkler or sprinkler water.

7. Exposure controls and personal protection

With using of the product under normal conditions, respiratory protection is not required, nor are eyes, hands and other parts of the human body. However, during welding/sealing processes requiring heat sources (torches) gloves and protective clothing must be used.



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Safety Data Sheet

Component	CAS No.	Exposure limits
PP – (Poly) propylene	9003-07-0	OSHA TOTAL DUST: 15 mg/m ³ (particulate) NOC) OSHA RESPIRABLE DUST: 5 mg/m ³ (Particulate NOC) ACGIH TLV-TWA: 10 mg/m ³ (total dust) (particulate NOC)
Fatty acids and / or esters	mixture	Exposure limits are not known
Pigment: carbon tytanu	13463-67-7	OSHA PEL: 15 mg/m ³ TOTAL DUST (data for substances in powder form)

8. Physical and chemical properties

Main ingredient: Propylene
State of matter: Solid
Color and odor: White, odorless
Density at 20C: 0.9 - 0.92 g / cm³
Boiling point: Not applicable
Flash point: 440 C
Solubility in water: Insoluble

Temperature:

- Softening point: 120 - 150 ° C
- Melting point: 160 - 168 C
- Ignition: 380 - 460 C
Decomposition:> 300 ° C

Explosive properties: no

9. Stability and reactivity

Dangerous reactions: None, stable under normal conditions of use.

Hazardous decomposition products: Mainly hydrocarbons such as ethane, propane, penatn, 2-methlo-1-pentene, and toxic gases such as carbon monoxide, and carbon dioxide.

10. Toxicological information

Products are not toxic due to the presence of TiO₂, which is enclosed within the polymer, and not expected to release during normal processing conditions nor in emergency cases.

11. Ecological Information

Nonwovens are practically insoluble in water. They will not have an adverse effect on water quality, and are non-toxic to fish and other animals. They do not cause any threat to land and natural bodies of water. In nature, are virtually non-degradable. However, under the influence of sun exposure, photodegradation



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Safety Data Sheet

can be expected. Waste resulting from nonwovens processing should be treated in accordance with the guidelines set out in the Section 13.

Polypropylene nonwovens do not:

- Biodegrade
- Contain heavy metal salts
- Contain pesticides and pentachlorophenol

12. Disposal

Management options for uncontaminated materials include recycling mechanical, chemical, or energy recovery. Disposal methods for all countries must be consistent with the state, in district and municipal local regulations.

13. Transportation Information

- Any kind of transportation is acceptable provided that the material is protected against moisture, dust, dirt and mechanical/chemical damage.
- In accordance with national and international roadway, rail, air, and steamship regulations, this product is not dangerous.

14. Regulatory Information: There are no local regulations associated with the product.

End of the safety data sheet.

Prepared by:

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