

Kiran Italia



**SIDHYA ASIA**  
CHEMICAL PRIVATE LIMITED

# **SIDHYA® KIRAN TUNNEL TEAM**

## **YOUR PARTNER IN TUNNELLING**

### **ADVANCED CHEMICAL SOLUTIONS FOR MODERN TUNNELING**

# ABOUT US

Kiran Italia was established in 2025 to serve the European tunnelling market. Kiran Italia is part of the Kiran Global Chem Group, founded in 1979 in Tamil Nadu, India, with its first factory producing grouting accelerators.

Today, Kiran Global Chem Group operates more than 13 factories in India and six overseas facilities in the UAE, Egypt, South Africa, Zambia, Saudi Arabia, and Qatar. Our seventh international factory is currently under development in Catania, Italy. We are proud to be among the top 10 companies globally producing this specialised product.

Kiran was the first company to supply grouting accelerators in India for the first metro project in Delhi. Since then, we have supported numerous projects worldwide, including:

- \* Dubai Metro, UAE
- \* Riyadh Metro, Saudi Arabia
- \* Sewage Tunnel Project, Abu Dhabi, UAE
- \* Doha Metro – Gold Line, Qatar
- \* Coastal Road Project, Mumbai, India

## WHY KIRAN–SIDHYA TUNNEL TEAM

In 2024, our promoter decided to expand our product portfolio. Beyond manufacturing grouting accelerators, our goal is to become a manufacturer and supplier of a broad range of construction chemical products—serving not only tunnelling projects but also elevated infrastructure projects—so that we can offer a one-stop solution for clients.

With this vision, we launched our construction chemicals brand SIDHYA® in November 2024, starting with our first factory in Chennai, India. Within one year, we established two additional construction chemical factories in India. Our third construction chemical plant is currently being set up in the UAE and is expected to begin operations in April 2026, as it is in its final phase.

Following the UAE facility, we are establishing our production base in Catania, Italy. Alongside our accelerator plant, we will also develop our construction chemical division under the SIDHYA® brand, aiming to provide European and Italian projects with a full suite of products under one roof.

Our Italy plant will have the capacity to produce over 10,000 MT of accelerator per month (approximately 120,000 MT annually), dedicated exclusively to the Italian market. The facility will be a state-of-the-art plant built in accordance with European standards and norms.

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**P T A L** *International* FZE



## SIDHYA® KIRAN TUNNEL TEAM

Tunneling Projects are always symbols of nation building and always key part of any country's infrastructure development. Sidhya® Kiran have rich history in tunneling for the past 25 years. Such Projects are part of nation building and our team takes pride in being part of such infrastructure projects. Sidhya® Kiran Tunnel Team consists specialized individuals who understand the technical challenges of the projects and who develop proposals beneficial to our clients. They are individuals who have been part of various projects and are available to support you in the best way possible. We support the project from initial site setting up stage till the end of project by maintaining quality and consistent supply of raw materials.

### ADVANTAGES OF WORKING WITH SIDHYA® KIRAN TUNNEL TEAM:

- ◆ Developing Mix Design with our joint technical expertise and R&D Centre.
- ◆ Establishing quality control procedures at site.
- ◆ Guiding the on site for various specifications.
- ◆ Setting up Quality Control Laboratories on site.
- ◆ Establishing logistical support by providing storage tank support.
- ◆ Ensuring high quality and economical output for client.

## SIDHYA® KIRAN TUNNELLING PRODUCTS

In modern tunneling construction, tunnels are constructed by two different methods – NATM method and Tunnelling Boring Method. Depending on the factors such as economics, geography of the rocks, profile of the tunnel and project timeline a suitable method is chosen. With Team Sidhya® Kiran we have solutions for both the methods as discussed below:

### Sidhya® Grout Fluid Series

Sidhya® Grout Fluid 650

Sidhya® Grout Fluid 740

Sidhya® Grout Fluid 745

Sidhya® Grout Fluid 222

Sidhya® Grout Fluid 333

### Sidhya® Bentocrete Series TBM Grouting applications.

Sidhya® Bentocrete 180

Sidhya® Bentocrete 320

### Slurry TBM Applications

Sidhya® Bentocrete 360

### Annular back fill grouting additives in TBM tunneling

Annular Back fill grouting or two-component grouting system is used as a lining between the pre-cast rings and the soil. Depending on the length and size of the TBM we design our stabilizers/retarders to give the grout a workability of 24 to 72 hours depending on the requirement with minimum bleeding. We ensure minimum bleeding to avoid further choking pipelines during mining operations. Sidhya® Grout Fluid are high quality tunneling backfill grout super retarders which are designed to cater the requirements of projects.

We also supply premium high quality construction grade bentonite for grouting and slurry TBM applications. Sidhya® Bentocrete comprises of high quality API grade bentonite for grouting to minimize the bleeding and avoid blockage of supply pipes from surface to TBM storage tanks. For Slurry TBMs, we also modify our bentonite to cater to the yield point and high liquid limit required requirement of our clients.

At Sidhya® Kiran with our in house facility we manufacture TBM accelerators with high quality. We ensure that our accelerators yields the highest compressive strength with minimum cementitious and also fulfill the gel-time requirement of our clients. Our in house Research and Development team develops mix design for two component grouting systems by using the above product systems. We offer a diverse range of solutions to our clients and hence forth ensures accountability, reliability and high quality.



### Sidhya® Roc Drive Series

Sidhya® Roc Drive 105

Sidhya® Roc Drive 110

Sidhya® Roc Drive 120

### Sidhya® Soil Plast Series

Sidhya® Soil Plast 117

Sidhya® Soil Plast 217

Sidhya® Soil Plast 115

### Sidhya® Quick Crete Series

Sidhya® Quick Crete 140 AF

Sidhya® Quick Crete 150 AF

### Sidhya® Flow Series

Sidhya® Flow PC 300

Sidhya® Flow PC 200

Sidhya® Flow PC 150

## SIDHYA® KIRAN TUNNELLING PRODUCTS

### Soil Conditioners for TBM Mining

Sidhya® Roc Drive are high quality foaming agents required by TBM for mining with ease. This reduces the wear and tear on cutter heads and henceforth reducing the maintenance of TBMs. The Soil mined also reduces in weight and henceforth reduces the load on conveyor belts. We optimize our formulations are designed to be used with standard foam generators available on EPB tunnel boring machines. It is injected with foam injectors by mixing it with air and water into the cutterhead and working chamber to condition the soil by generating foam. When injected by a foam generator the foam expansion ratio (FER) can vary between 6 to 20 and the foam injection ratio can vary from 5 to 80 depending on the soil profile encountered during mining.

Sidhya® Soil Plast are high end polymers required to reduce abrasion from hard rock mining. We also manufacture polymers to avoid high pressure water ingress. Sidhya® Soil Plast series helps in anti-clogging and improves the transfer of muck from the cutter head chamber to screw conveyor. Our products reduces the risk of blocking and hence reduces maintenance significantly. The product supports the mining by cooling the cutter discs and improving the durability of rubber seals.

### Shotcrete technology – The conventional Method

We manufacture high quality shotcrete accelerators under our brand Sidhya® Quick Crete. They are high quality alkali free accelerators to produce smooth spraying operations with least rebound factor and wastage of concrete.

We also produce high quality superplasticizer to produce high quality spray concrete under our brand Sidhya® Flow which ensures high workability and retention period for the concrete.



## SIDHYA® KIRAN - TUNNEL RING SOLUTIONS

Sidhya® Asia and Kiran Global Geo Cements jointly offers a wide variety of tunneling products which can significantly reduce costs and enhance the quality of transportation and infrastructure projects. We manufacture high quality products for concrete segments, tunneling, mining and shotcrete applications for both NATM and TBM Tunneling methods.

### Superplasticizers for Precast Rings

Sidhya® Visco products are designed to yield high early strength and producing cohesive concrete mixes. Concrete segments are manufactured in precast factories which high strength and high-quality products to achieve so. For casting tunnel segments with precision requires high quality self dynamic concrete (SDC) for which we propose Sidhya® Visco superplasticizers. Our range of products under this brand provide high water reduction effect and hence suitable for mix design with water-cement ratio 0.18 to 0.45

### Mould Release for Precast Concrete

Sidhya® Release Aid are high quality sustainable mould oils which we manufacture to increase the life of our client's mould. Our release agents are viscous in nature and hence can also be used for vertical castings. Sidhya® Release Aid are non-mineral oil based products and hence does not leave stains or marks on the precast elements.

Sidhya® Shutter Aid are series of products based on mineral oil based mould oil which are suitable for horizontal moulds and can also be used in production lines of interlocks, pavers and hollow blocks.

### Durability solutions for Precast Concrete

We also supply integral waterproofing admixtures Sidhya® Crete WP and corrosion inhibitors Sidhya® Crete CI for the purpose of enhancing the durability of concrete precast segments. Sidhya® Crete WP are our waterproofing solutions which can significantly reduces the water absorption and water permeability of the concrete. We offer various types of waterproofing solutions which can be classified into three types of application methods:

1. Sidhya integral waterproofing system
2. Sidhya crystalline waterproofing system
3. Sidhya coating waterproofing system

Sidhya® Crete CI are our corrosion prevention technology which can be mixed with concrete during production and enhances durability.

### Spraying/Rolling applications on concrete surfaces:

Sidhya® Pro Cure 105

Sidhya® Pro Cure 110

Sidhya® Pro Cure 200

### Integral Curing Compounds

Sidhya® Pro Cure 300

### Products Names

Sidhya® Microsil 920

Sidhya® Microsil 950

Sidhya® Microsil 500s

## SIDHYA® KIRAN - TUNNEL RING SOLUTIONS

### Curing Compounds for Precast Concrete

Sidhya® Pro Cure are high quality curing compounds which increases the efficiency of production. By using curing compounds, the project site saves on consumption of water for curing, movement of precast elements and area of precast elements for curing. Curing compounds can be classified into two categories:

### Premium Microsilica for high Strength Concrete

Durability of concrete especially in major infra projects is a key factory. Team Sidhya focuses on the same and hence we also supply high quality micro silica for precast segments under our brand **Sidhya® Microsil**. Micro silica is a highly sustainable material which is can be used as an alternate cement as a pozzolanic material. **Sidhya® Microsil** is brand which comprises of premium quality micro silica which helps to increase the compressive strength and cohesion in fresh concrete. **Sidhya® Microsil** reduces water permeability and increases the life of the tunneling segment as well.

### Sidhya® Kiran Structural Fibres

**Sidhya® Fibres** are polypropylene structural macro fibers which are used for increasing flexural strength of concrete lining and henceforth reducing the dependency on steel reinforcements. Using such technology also reduces the risk of corrosion. They are direct replacement of steel fibers and are easy to handle and dose during concrete production.



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