

Pioneering Polycarboxylate **Ether Production** in Saudi Arabia

> Dammam, 2nd Industrial City, Saudi Arabia



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Tristar Technical Co. envisions a future where locally manufactured specialty polymers empower the Saudi market. We are committed to reducing dependence on imports and actively contributing to the achievement of SAUDI VISION 2030, particularly through initiatives like SAUDI MADE, aimed at transforming the nation's industrial landscape.





The Latest Generation of Concrete Superplasticizer POLYCARBOXYLATE ETHER & SPECIALTIES

TriStar Technical Co. produces all the major grades of PCE. With an installed capacity of 30,000 MTPA of liquid PCE polymers, we are the first company to be engaged in commercial PCE production and market leader in Saudi Arabia and the Middle East.

TRISTAR TECHNICAL CO.

Transforming Concepts into Concrete Reality

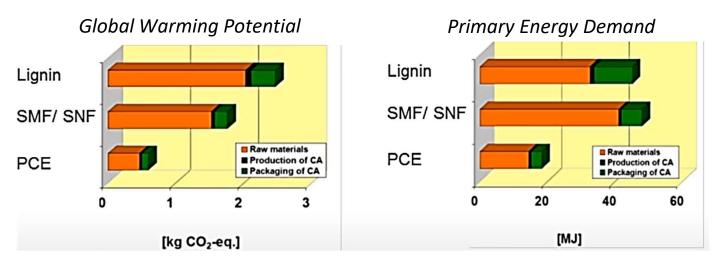
- Started with a vision to become the leading PCE manufacturer in Saudi Arabia
- Validated the concept with a fully operational modern PCE Manufacturing Plant in Dammam's 2nd Industrial City.

TRISTAR TECHNICAL CO. 🕢 شركة ترابي ستار الفتية

- SIKA, MBCC (now part of SIKA), SAINT-GOBAIN, and FOSROC, the biggest consumers of PCE in KSA, confirmed our product quality and approved us as their qualified and regular suppliers.
- Engaged with almost all producers of concrete superplasticizers in Saudi Arabia for their conventional and specialized needs.
- Ready Stock Available for Prompt Shipments to throughout the world.
- Commitment to sustainability, zero waste initiatives, and lower energy consumption.

GREENER CONSTRUCTION CHEMISTRY

Reduced Carbon Footprint



- Advanced Technology: Our manufacturing process *consumes less energy* than other conventionally produced PCEs and other forms of superplasticizers.
- Low Cement Consumption: PCE *lowers carbon emissions* in concrete construction by reducing the need for cement while maintaining the strength and flowability.
- Low Water Consumption: PCE reduces water consumption of concrete by lowering Water/Cement (W/C) ratio.





TRISTAR PCE WR50

A HRWR – High Range Water Reducer PolyCarboxylate Ether (PCE) Polymer

- TriStar PCE WR50 is a comb-type Polycarboxylate Ether Polymer, with superior dispersing ability to cement, which can significantly enhance the workability of concrete mix.
- TriStar PCE WR50 is a base material for third-generation superplasticizer/concrete admixture.
- The product features:
 - High water reducing ability
 - High initial workability
 - Regular retention workability
 - Superior dispersing ability and generate extremely fluid concrete
 - · High compatibility with cements and mineral admixtures
 - Preferable compatibility with materials- containing high content of powder or clay
 - Good surface appearance of concrete





TRISTAR PCE SR50

A SSR – Super Slump Retainer PolyCarboxylate Ether (PCE) Polymer

- TriStar PCE SR50 is a comb-type Polycarboxylate Ether Polymer, with superior slump-controlling and dispersion ability to cement, which can significantly enhance the workability of concrete mix. It has a Superior slump retention ability due to its sustained-release effect.
- TriStar PCE SR50 is a base material for third-generation superplasticizer/concrete admixture.
- The product features:
 - Good fluidity of concrete
 - Reduced slump loss and higher retention workability
 - Reduce the viscosity of concrete
 - High compatibility with types of cement and mineral admixtures
 - Good surface appearance of concrete



TRISTAR PCE HB50

A High-Range Hybrid Type (Water Reducer and Slump Controller) PolyCarboxylate Ether (PCE) Polymer

- TriStar PCE HB50 is a comb-type Polycarboxylate Ether Polymer, with a wellbalanced dual performance of reasonable water reduction and slump retention. It will ensure the cost-effectiveness and adaptability of all ranges of concrete with good water reduction, improved workability, and concrete properties.
- TriStar PCE HB50 is a base material for third-generation superplasticizer/concrete admixture.
- The product features:
 - Balanced performance of water-saving and slump retention
 - Excellent workability in concrete
 - Dosage flexibility
 - High compatibility with types of cement and mineral admixtures
 - Good surface appearance of concrete
 - Good fluidity due to the low viscosity of concrete



TRISTAR PCE CT50

A High-Range Water Reducing Clay Tolerant PolyCarboxylate Ether (PCE) Polymer

- TriStar PCE CT50 is a comb-type Polycarboxylate Ether Polymer. It is least sensitive to clay-bearing aggregates. It is hard to be intercalated or adsorbed by clay crystal structure. TriStar PCE CT50 can meet the requirement of high clay-bearing concrete for enhanced workability.
- TriStar PCE CT50 is a base material for third-generation superplasticizer/concrete admixture. The product features:
 - Higher Water Reducing ability
 - Especially applicable for high clay-bearing materials
 - Good Retention workability
 - Low air entrainment
 - Higher Early Strengths
 - Improve clay tolerance of other products as functional mother liquid
 - High compatibility with cements and mineral admixtures





TRISTAR PCE VR50

A HRWR – High Range Water Reducer PolyCarboxylate Ether (PCE) Polymer with Water Reducing Properties

- TriStar PCE VR50 is a comb-type Polycarboxylate Ether Polymer, with superior dispersing ability to cement, which can significantly enhance the workability of concrete mix.
- TriStar PCE VR50 is a base material for third-generation superplasticizer/concrete admixture.
- The product features:
 - Very high water reducing ability
 - Makes Less Sticky Concrete
 - High initial workability
 - High retention workability
 - Superior dispersing ability and generate extremely fluid concrete
 - · High compatibility with cements and mineral admixtures
 - High compatibility with materials- containing high content of powder or clay
 - Good surface appearance of concrete



PRODUCTS PERFORMANCE RATINGS

TriStar PCE: Concrete Performance Rating																														
Product Name	Initial Workability					Slump Retention					Set Time					Low Air Content					Viscosity Reduction					Clay Tolerance				
TriStar PCE WR50-N1	☆	☆	☆	\$	\$	☆	☆	☆	☆	1	☆	☆	☆	\$	${\bigtriangledown}$	☆	☆	☆	$\overset{\wedge}{\Im}$	삸	☆	☆	☆	☆	1	☆	☆	\Rightarrow	\$	\$
TriStar PCE SR50	☆	☆	1	삸	\$	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1	☆	☆	☆	$\overset{\wedge}{\Im}$	삸	☆	☆	☆	\$	\$
TriStar PCE HB50	☆	☆	☆	☆	${\leftrightarrow}$	☆	☆	\bigstar	☆	1	☆	☆	☆	☆	1	☆	☆	☆	${\swarrow}$	\$	☆	☆	☆	1	\$	☆	☆	☆	☆	삸
TriStar PCE CT50	☆	☆	☆	☆	☆	☆	☆	☆	☆	1	☆	☆	1	$\overset{\wedge}{\Im}$	삸	☆	☆	☆	삸	삸	☆	☆	☆	\$	$\overset{\wedge}{\mathbb{Z}}$	☆	☆	☆	☆	1
TriStar PCE VR50	☆	☆	☆	☆	1	☆	☆	☆	☆	\$	☆	☆	☆	☆	☆	☆	☆	☆	삸	${\bigtriangledown}$	☆	☆	☆	☆	☆	☆	☆	☆	☆	삸

* Lower set time means faster setting, and higher set time means delayed setting.

OUR STRENGTHS

Research & Development

In-house R&D Capability and Quality Control Lab facility. We can develop PCE polymers based on our Customer needs.

Efficient Manufacturing

Capability for Sustainable Plant Operations and in-house Plant Maintenance. We Utilize a variety of Raw Material to produce a diverse range of PCEs.

Technical Development

In-house plant design capability for future expansions, retrofitting and upgrades.





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OUR FOCUS

Highly Trained, Highly Effective

TRISTAR TECHNICAL CO. 🥢 تشنية المرحة ترابي ستار الفنية 🖿

- Customer Satisfaction
 - Through Technology Advancements
 - Competitive Prices
 - Consistent Quality
 - Specialized Product Development
- Continuous Growth
 - Plans for a *Solid PCE (Powder)* production line.
 - Collaborating with regional and global players to construct a local *Polyether Macromonomer* (a major Raw Material for PCE) manufacturing plant.



OUR GOALS



STRATEGIC REGIONAL EXPANSION

Expanding our market reach and **reducing imports** of PCE by supplying the Middle East, South Europe, and Africa with our high-quality products.



DIVERSIFICATION AND INTEGRATION

Fostering innovation by diversifying our product line to include **solid and specialized PCEs**, enhancing our value proposition.



SUSTAINABLE LOCAL PRODUCTION

Driving sustainability through backward integration, partnering with a leading Petrochemical Industry player to produce **Polyether Macromonomers locally** in Saudi Arabia.



OUR CUSTOMERS

- SIKA
- MBCC (Master Builders Solutions) Now part of SIKA
- FOSROC (Saudi Fosam)
- Saint-Gobain (SODAMCO)
- CICTG
- Blend Chemicals
- Rawafed
- Factory of Saud M. Ali Guhal For Chemicals
- Baxel Kuwait
- SOS Chemicals Kuwait
- UniChem Bahrain
- Hard Stone Iraq



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