

**Think Right
Think Fiber**



GTS PL-830
Concrete Reinforcing Fiber



“There’s a way to do it better...find it.”

Thomas Edison

The world already Finds this way and GTS bring it to you

in the upcoming pages we will introduce to you the **GTS PL830** Concrete reinforcing fiber it is the innovative product that replaces steel in Slab on grade and screed.

Our factory was established in cooperation under the auspices of the Italian company GTS; which has a large experience in the field of modern construction technology through engineers and technicians with a highly qualified and specialize in building materials and construction using the latest methods that came to it in this area.

the factory is the first and only in the Gulf region and the Middle East in producing of plastic fibers with high quality technology of polypropylene material which is used to replace steel reinforcement, steel mesh and steel fiber in slab on grade and screed and other concrete elements.

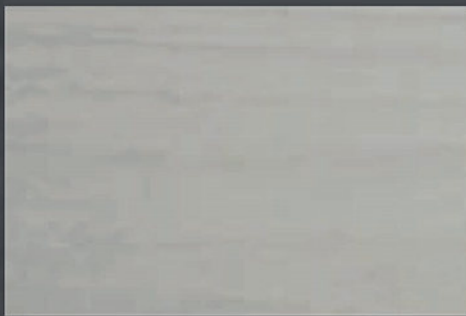


Why?



Think right
...
Think Fiber

With fiber



Without fiber





- Used to replace steel bar, steel mesh and steel fiber in slab on grade and screed.
- Time saving and less labour (Much more economically)
- Resists crack, reduce breakage and chipping
- Reduce plastic shrinkage and drying shrinkage.
- High resistance to static loads and friction loads.
- Gives higher bond based on his serrate shape.
- Will not rust (No corrosion)
- Chemically stable in alkaline and oxidizing
- Enhances
 - flexural strength
 - compressive strength
 - splitting tensile strength
 - impact strength
 - first crack strength
 - toughness
 - ductility
 - durability.
- Protect edges and corners not reinforced by steel.

Where?



- Slab on grade and screed.
- Airport Runways and Taxi ways.
- Factory floors, High impact and fork lift truck areas.
- Driveways, parking lots, roads, highways, bridge decks
- Quays, landing strips.
- Live stock areas.
- Chemical plants.
- Tennis courts.
- Subterranean walls.
- Shotcrete.





- Toppings, gutters and concrete pipes.
- Concrete tiles and architectural panels.
- Rock and stabilization projects.
- Mines, canals and tunnel linings.
- Precast concrete.



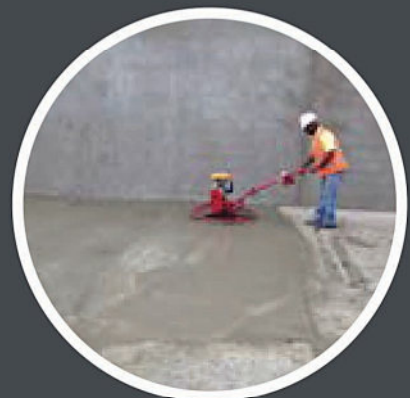
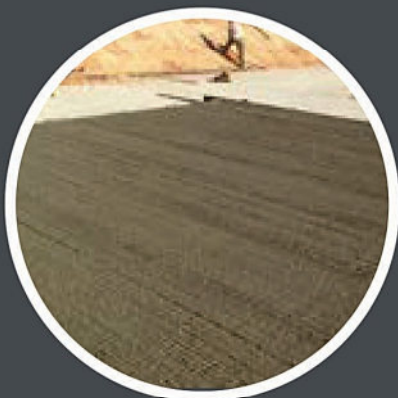
How?



- Add quantity of fiber concrete in the mixer and thoroughly mix concrete
- No need to add water and comply with the mix design.
- Make sure to distribute fiber in a uniform way in the mixer.
- Make sure to choose the right GTS fiber PL380 length base on maximum aggregate sizes.

Dosage

- GTS PL-830 fiber has regular dosage rate of 3 Kg to 5 Kg per cubic meter. Dosage rate should be determined based on performance requirements.



Technical Data

Length	30 mm, 40 mm, 50 mm
Thickness	0.30 / 0.50 mm
Color	White
Width	1.00 mm 1.30 mm
Specific Weight	0.9 g/cm ³

Water Absorption	0.01 - 0.02
Crack Tensile Strenght	450/600 Mpa
Young's Elastic Modulus	3.5KN/mm ²
Compressive Strenght	550/800 Mpa

ACI References



American Concrete Institute

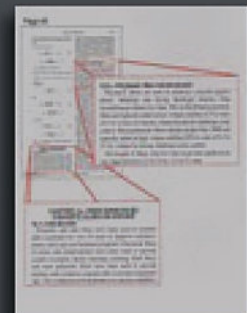
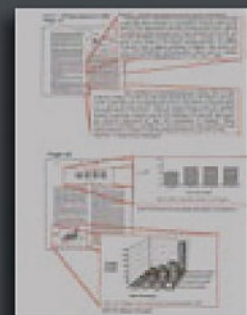
- ACI 544.1R-96
- ACI 544.1R
- ACI 360R-06
- ACI Committee Report 360R-6

Original copies available upon request

RESEARCH REPORT
R-6

State-of-the-Art Report
on Fiber Reinforced Concrete
Submitted to ACI Committee 608

Year	Author	ACI Report
1970	W. G. Gardner	ACI 308R-70
1971	W. G. Gardner	ACI 308R-71
1972	W. G. Gardner	ACI 308R-72
1973	W. G. Gardner	ACI 308R-73
1974	W. G. Gardner	ACI 308R-74
1975	W. G. Gardner	ACI 308R-75
1976	W. G. Gardner	ACI 308R-76
1977	W. G. Gardner	ACI 308R-77
1978	W. G. Gardner	ACI 308R-78
1979	W. G. Gardner	ACI 308R-79
1980	W. G. Gardner	ACI 308R-80
1981	W. G. Gardner	ACI 308R-81
1982	W. G. Gardner	ACI 308R-82
1983	W. G. Gardner	ACI 308R-83
1984	W. G. Gardner	ACI 308R-84
1985	W. G. Gardner	ACI 308R-85
1986	W. G. Gardner	ACI 308R-86
1987	W. G. Gardner	ACI 308R-87
1988	W. G. Gardner	ACI 308R-88
1989	W. G. Gardner	ACI 308R-89
1990	W. G. Gardner	ACI 308R-90
1991	W. G. Gardner	ACI 308R-91
1992	W. G. Gardner	ACI 308R-92
1993	W. G. Gardner	ACI 308R-93
1994	W. G. Gardner	ACI 308R-94
1995	W. G. Gardner	ACI 308R-95
1996	W. G. Gardner	ACI 308R-96
1997	W. G. Gardner	ACI 308R-97
1998	W. G. Gardner	ACI 308R-98
1999	W. G. Gardner	ACI 308R-99
2000	W. G. Gardner	ACI 308R-00
2001	W. G. Gardner	ACI 308R-01
2002	W. G. Gardner	ACI 308R-02
2003	W. G. Gardner	ACI 308R-03
2004	W. G. Gardner	ACI 308R-04
2005	W. G. Gardner	ACI 308R-05
2006	W. G. Gardner	ACI 308R-06
2007	W. G. Gardner	ACI 308R-07
2008	W. G. Gardner	ACI 308R-08
2009	W. G. Gardner	ACI 308R-09
2010	W. G. Gardner	ACI 308R-10
2011	W. G. Gardner	ACI 308R-11
2012	W. G. Gardner	ACI 308R-12
2013	W. G. Gardner	ACI 308R-13
2014	W. G. Gardner	ACI 308R-14
2015	W. G. Gardner	ACI 308R-15
2016	W. G. Gardner	ACI 308R-16
2017	W. G. Gardner	ACI 308R-17
2018	W. G. Gardner	ACI 308R-18
2019	W. G. Gardner	ACI 308R-19
2020	W. G. Gardner	ACI 308R-20
2021	W. G. Gardner	ACI 308R-21
2022	W. G. Gardner	ACI 308R-22
2023	W. G. Gardner	ACI 308R-23
2024	W. G. Gardner	ACI 308R-24
2025	W. G. Gardner	ACI 308R-25



Approvals



- Khatib & Alami.
- Dar Al-Handasah.
- Al-Shabanat.
- Eadarat.
- Zuhair Fayez.
- Typsa.
- Shako.
- Arab Tech.
- Saudi Architects.
- Al-Bdayel for engineering.
- Engineering of housing division.
- V3 engineering consultancy.

Project References

Consultant	Contractor	Client	Project
V3 Engineering Consultancy	Sabqon International Holding	Jeddah Ammanah	Asfan Industrial City
Saudi Aramco	Sendan Int. Co. LTD	Saudi Aramco	Sadara
Khatib & Alami	AbdulaLi AlAjami	Modon	3 rd Dammam Industrial City
Minstry Of Finance	Al-Orini Contracting Co.	Minstry Of Finance	Salwa Lorry Parking
Minstry Of Finance	AlHabayeb Contracting & trading	Minstry Of Finance	AlHaditha Lorry Parking
Al-Shabanat	Al-Bawakir	Minstry Of Finance	AlBatha Lorry Parking
	Al-Orini Contracting Co.		Al-Roagai Lorry Parking
Saudi Aramco	Drake & Scull	King Abdullah Petroleum Studies Research	Petrol Stations
	Kabbani Construction Group		
Eadadat	Saudi Technical Limited	STC	New Data Center (Riyadh)
Projects Star	Projestar	Al-Tamimi	Al-Tamimi Mall
STS	Saudi Technical Support	Private	Private Villa
Amad Internationality	Amad Internationality	Amad Internationality	Villas Compound
Al-Othaim	Dar Al-Khiyoul Contracting	Al-Othaim	Villas Compound
	Al-Othaim		Al-Othaim Mall
Zuhair Fayez	Bin Laden	Munshaat Co.	Dar Al-Qabla
	North Sky	North Sky	North Sky
	Saudi Lebanese Tarouk Cons. Co.	Saudi Lebanese Tarouk Cons. Co.	Saudi Lebanese Tarouk Cons. Co.
Dar Al-Handasah	Al-Najdain for Cont.	Dar Al-Arkan	Al-Qaser
	Al-Qudeebi	Dar Al-Arkan	Al-Qaser
	Buliding Construction Co.(BBC)	Dar Al-Arkan	Al-Qaser
	Azmeel	Dar Al-Arkan	Al-Qaser
	Salmoc	Dar Al-Arkan	Al-Qaser
Al-Hokair Group	Bassam& Shakir Partners LTD Co.	Abdulmohsen Al-Hokair	Holiday Inn Hotel
	Khalid Bin Nooh Est.	Abdulmohsen Al-Hokair	Holiday Inn Hotel

Consultant	Contractor	Client	Project
Khatib & Alami (K&A)	Latifah	Mr. Marwan Kousa	Pan Dor Factory
	Salmoc	Saudi Akari Co.	Akaria Plaza
	Samama	Samama	Samama Shopping Center
Abdullah Al-Mohanna Engineering Consultant Office	Al-Angary Co.	Dorrat Al-Riyadh Co.	Dorrat Al-Riyadh
Obaikan Engineering	Cetec	Obaikan Co.	Obaikan (Water Tank)
Al-Bdayel for Engineering	Construction Services	Al-Sulimanyah	Al-Sulimanyah Office
Al-Kyan	Al-Rashed	Maden Star Group	Bilda
Al-Mtlaq Bunhyah	Al-Ajlan Co.	Al-Ajlan Co.	Ajlan Tower
Al-Rashed	Babtain	Al-Rashed Co.	Al-Rashed Office
Al-Wasat Al-Handasi	Al-Arrab	Al-Seaidan Co.	Al-Seaidan Office
Arab Tech	Saudi Lebanese Tarouk Cons. Co.	Abdullah Al- Mushabab	Adex
Arriyadh Development Auth.	Al-Sarif Corporation	Arriyadh Development Auth.	Business Oasis
Engineering of Housing Division	Al-Najdain for Cont.	Air Forces Of the defense	Fiber Optical Network Management Building
Obaikan Co.	Husseini General Cont.	Obaikan Co.	Obaikan Duplex.
Al-Badael for Eneering	Construction Services	Abdullah Al-Jarboua	Private Villa
Riyadh Municipality	Bayt Al-Thalatheen Co.	Riyadh Municipality	Water Fountin of Crown Prince
Saudi Architects	Commitco	Mulhi Bin Sadan	Al-Byout Al-Maktabiah
Shako	Salmoc	Marriot	Makarem Hotel
Typsa	Al-Rashid & Mangour Co. (RMC)	Imam University	Imam University
Moh'd Al-Sabh	Al-Sabh Est. For Construction	Moh'd Al-Sabh	Al-Sabh Factory

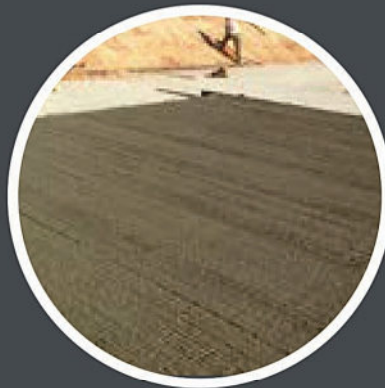
كيف؟



- تضاف كميه الفيبر في محطات الخلط المركزيه مع مكونات الخرسانه او يمكن خلطها في الموقع في الخلاطه ويتم خلطها لمده من ٥ الي ١٠ دقائق بسرعه عاليه
- لاتحتاج الي زياده في مياه الخلط التصميميه ولا تحتاج الي اي اضافات اخري
- لابد من التأكد من انتشار الفيبر في الخلطه بطريقه منتظمه

الجرعة

- معدل الجرعه من ٣ الي ٥ كيلو جرام لكل متر مكعب.



أين؟



- مدارج وممرات المطارات وممرات التكرسيات.
- البلاطات الارضييه وطبقات الاسكريد.
- ارضيات المصانع والمواني التي تتعرض الي احمال صدم كبيره وعليها حركه اوناش ورافعات.
- ساحات التخزين التي عليها احمال عاليه.
- ممرات ومواقف السيارات واسطح الجسور.

- الارصفه وممرات الهبوط و ارصفه المواني.
- المحطات الكيمياءيه.
- الملاعب الرياضيه.
- الحوائط والخزانات الارضييه.
- الخرسانه المرشوشه.
- مجاري الصرف والمواسير الخرسانيه.
- الخرسانه المطبوعه.
- الخرسانه سابقه الصب.
- البلاط الخرسانى واللوحات المعماريه الخرسانيه.
- تبطين المناجم والمجاري المائيه والانفاق.



احسبها صح ... استخدم الفايبر

- تزيد قدره الخرسانه علي تحمل قوي الانحناء والضغط والشد والصدم و تعطي مقاومه صلابه عاليه.

- يعطي مقاومه عاليه في قوي الشد المباشر حتي (400/500 Mpa).

- تحمي الحواف والاركان التي لايمكن وصل الحديد اليها عن طريق انتشار الفايبر في كامل القطاع الخرسانى.

- صمم الفايبر بشكل فريد لكي يزيد من الالتصاق الميكانيكي في الخلطه.

- ذات قدره عاليه علي الانتشار و الاختلاط في الخلطه الخرسانيه ويوزع بانتظام من غير حدوث تكور او انفصال في الخرسانه ويعطي تشغيله ممتازه.

- تقلل من نفاذيه الخرسانه.

- ليس لها اي ضرر علي معدات ضخ الخرسانه.

- صديق للبيئه.



- توفر في الوقت والعماله ولا تحتاج عماله متخصصه.

- موفر اقتصاديا مقارنة بالحديد.

- تعطي مرونة عاليه وتزيد من قدره الخرسانه علي امتصاص الطاقه تحت الاحمال العاليه.



- يعطي تماسك وتلاصق اكثر بكثير من اي نوع من انواع الفيبر المماثله نظرا لوجود نتؤات في شكل الفيبر.

- بديل لحديد التسليح في البلاطات الارضيه وطبقات الاسكريد.

- لا تصدا او تتدهور بالمقارنه بحديد التسليح وخاصه عندما لا يكون متركز بشكل صحيح في الخرسانه مما يعرضه للمياه الارضيه والتربه.

- ليس له ايه تفاعلات كيميائيه (لا يصداً).

لماذا؟

- يقاوم الشروخ التي تحدث في كل الاتجاهات نظرا لانتشاره في كامل القطاع ويقلل من الانكماش اللدن وانكماش الجفاف.

- يقاوم الاحمال الثابته والمتحركه.

- يقاوم قوي الاحتكاك.



*Looking forward for
doing business with you soon*



FUTURE

Future Trading & Import

Address: 22 Mahmoud Hamdy Khatib St. Elshlalat Alexandria, Egypt

Tel : +2 033930388

www.fti-egy.com

Fax: +2 034945539

email: info@fti-egy.com