



Engineering
America

Nothing but the glass **FACTS**

Bringing Clarity to Aquastore® Glass- Fused-to-Steel Tanks

Established in 1980, Engineering America is the reliable and experienced resource for liquid storage tanks. Our glass-fused-to-steel is the premium tank coating technology. Its physical properties are specifically suited for municipal and industrial liquid storage applications. While other tank companies claim that their factory painted organic coatings are as good as or better than glass, when you look at the clear cut facts you know there simply is not a better tank coating than glass-fused-to-steel.

THINK TANK



Glass-fused-to-steel (porcelain enamel) versus paints (epoxy)

When evaluating your tank storage needs, know the facts about Aquastore® glass-fused-to-steel tanks and contact Engineering America for all your tank needs.



- Interior Face**
 - Base Steel
 - Interior A Coat
 - Base Glass Coat
 - White TiO₂ Coat
- Exterior Face**
 - Base Steel
 - Exterior A Coat
 - Cobalt Blue Top Coat

An inert, inorganic coating that NEVER needs painting and is still performing with the original glass coating after 60+ years of service.

A single, strong, integrated glass and steel material fused together at 1,500° F in a controlled process furnace.

We don't "bake" our coating to get it to stick, we chemically alter it to yield its proven strength and long-term endurance. Proven performance of porcelain enamel coatings is evident in a wide range of products including tanks, silos, containment structures, appliances, medical equipment and many others.

Proprietary Vitrium™ technology exceeds all other internal coatings, and at a range of 10-18 mils (averaging 16 mils), is unmatched by any other coatings in the market. Vitrium technology combines the outstanding chemical and physical resistance properties of titanium-enhanced (TiO₂) glass with a highly engineered, ultra-fine glass bubble structure. The exterior layer of glass ranges from 7-15 mils in thickness.

Our proprietary Edgecoat™ protection process involves thermally applying a stainless steel alloy to mechanically rounded sheet edges. Stringent plant quality control procedures ensure the Edgecoat™ remains in place throughout the life of the tank.

Glass is impermeable to liquids and vapors, it eliminates corrosion undercutting and offers excellent impact and abrasion resistance.

VS

Organic coatings and field applied paints will begin to slowly deteriorate upon installation and will need to be repainted in order to remain in service.

VS

Generic powder coating is sprayed and mechanically bonded (by melting) onto steel at 400° F. The particles in the two-component system bond to each other to form the final coating. There is NO molecular linking or fusing between the coating/paint and steel.

VS

Most epoxy coatings and paint are mechanically bonded to the steel in thicknesses of 7-11 mil on the interior of the tank. The exterior thicknesses are even less, in the 6-10 mil range.


VS

The powder coating process deposits paint powder on sheet edges and bolt holes. However, unless that sheet is mechanically rounded prior to coating, it will not adhere properly. Organic coatings and paints begin to deteriorate from the first day they are put into service and will require repainting.


VS

Organic coating and paint can suffer corrosion and undercutting due to lower coating bonding strength with the steel substrate.


Aquastore versus coated/painted tanks



All design and engineering for Aquastore glass-fused-to-steel tanks is done in-house for quality control and cost efficiency. All erection is performed by authorized Aquastore tank dealers only.



Aquastore tanks utilize a unique web truss system that was developed by Engineered Storage Products Company decades ago. This structural design component provides optimal wind stiffness for your tank application. An Aquastore tank with or without the unique web truss system will always meet the design code specified.



Authorized Aquastore Dealers offer a turn-key system for the life of the tank from specification to construction to service. No other tank company has the 60+ years of experience and history of service that you get from the Aquastore Dealer network.

VS

Design and engineering is often performed by outside contractors, not the people actually manufacturing the tanks. Erection of many pre-fabricated tanks is performed by non-tank specific contractors without factory personnel.

VS

Painted tanks need higher steel thickness to withstand the blasting required to re-coat. Field repainting the joints, nuts, bolts and washers of a bolted tank is difficult to do with any consistent level of quality, causing shorter periods of operation between repainting cycles.

VS



Most other coated or painted tank suppliers want to just build the tank and leave. Will they be around when it's time to repaint, make modifications, perform periodic inspections and provide prompt service needs? A promise of longevity of any product is only as good as the company that stands behind it. Ask for a reference list of tanks they have manufactured and built that are more than 10 years old.



Engineering America

647 Hale Avenue N.
Oakdale, MN 55128
Ph: 651-777-4041
Fax: 651-777-5312
www.engamerica.com

Minnesota, Iowa,
North Dakota,
South Dakota and
Western Wisconsin

18900 W. 158th Street
Suite E
Olathe, KS 66062
Ph: 913-782-7774
Fax: 913-782-7776
www.engamerica.com

Kansas, Nebraska and
Western Missouri

6706 N. Franklin
Loveland, CO 80538
Ph: 970-962-9400
Fax: 970-962-9412
www.engamerica.com

Colorado, Utah,
Wyoming and Montana

300 S. Hamilton Place
Gilbert, AZ 85233
Ph: 480-895-1106
Fax: 480-802-7704
www.engamerica.com

Arizona, New Mexico
and Southern Nevada

*Engineering America
Provides Communities
Lifetime, Economical and Environmental
Water Storage Tanks and
Process Solutions*

THINK TANK