CRYSTAR® FT
Silicon Carbide Ceramic Filters
FOR RECREATIONAL WATER

WHEN THE QUALITY OF WATER MATTERS
Saint-Gobain leads the international recreational water filtration industry with high performance ceramic honeycomb filter technology.

- Multichannel honeycomb for engineered water flow.
- Layered membrane structure improves filtration performance.
Swimming pools, splash pads and other aquatic activities can be wonderful leisure experiences for you, your family and friends. During your vacation or in your daily life, the benefits of enjoying recreational water are undeniable.

The use of Crystar® Filtration Technology will ensure you have the best experience in your recreational water activities. Indeed, this revolutionary technology provides healthier and more pleasant water thanks to:

- A reduction of 30 % in chloramines (combined chlorine) and trihalomethanes (THM) content, which eliminates the chlorine odor and reduces irritation of eyes, skin and lungs.

- Reduction of at least 40 % in turbidity, resulting in **CRYSTAL CLEAR WATER!**

- The unmatched efficiency of silicon carbide microfiltration, a physical barrier to stop dangerous microorganisms (*legionella, cryptosporidium...*) in their tracks.
When the quality of water is **cost effective**

**Major Benefits over Sand Filters**

The benefits of Crystar® Filtration Technology for the operation and safety of your swimming pool cannot be overstated:

- **70% reduction** in backwash water consumption
- **30% reduction** in chemical usage
- **20% reduction** in power consumption
- **30% reduction** in footprint
- A **maintenance-free, long life** filtration system
- **Reduced risk** of swimming pool closures
- Able to operate automatically
- Up to **40% less residual turbidity**
- Up to **40% less combined chlorine** (chloramines)
- Up to **30% less THM** (trihalomethanes)
**When the quality of water reflects technology innovation**

An ultra-compact ceramic honeycomb structure with alternatively plugged channels:

- Very high **filtration area** – 11 m² for a filtration element of 149 x 149 x 1000 mm.
- Well defined and stable path for inlet water flow and filtrate water exit, ensuring **low operating pressure** and **easy and fast backwash** (30 – 50 liters/filtration element, 3 seconds).

Crystar® Filtration Technology is a highly engineered product that utilizes the unique properties of recrystallized silicon carbide, a special ceramic characterized by:

- Very high **chemical stability** and **abrasion resistance**.
- Excellent **permeability** to water.
- Stable and well controlled microstructure for **reliable removal** of particles and microorganisms.
Designing recreational water systems is the core of your business. You believe in the value of water quality. You believe in the strength of technology. Nevertheless, you are having a hard time promoting high quality filtration systems in a market dominated by low cost solutions with poor performance.

The Market Trends Are Shifting

Increasing awareness of recreational water health issues

The challenge to provide environmentally-friendly filtration technologies

Vacuum mode configuration sports and therapy pools, Norway – 540 m³/h

Pressure mode configuration wellness pool, Germany – 80 m³/h

Crystar® Filtration Technology is the response to the urgent need for more efficient and reliable filtration systems for recreational water.
Choose which CryStar® FT Filters works for you

**Crystar® HiPur** - The choice for therapy and wellness pools, spas and other challenging pools.

- Highest retention efficiency thanks to the 250 nm membrane
- Lowest chemical consumption

**Crystar® HiFlo** has the *ideal balance between water quality and flow rate capacity*, making it the preferred choice for recreational pools, aquatic parks and splash pads.

Cost effective versus current filtration technologies.

- Less maintenance
- Smaller installation footprint

### Compare CryStar® FT Silicon Carbide Ceramic Filters to sand filters

<table>
<thead>
<tr>
<th></th>
<th>Crystar® HiPur</th>
<th>Crystar® HiFlo</th>
<th>Sand Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow rate</td>
<td>6 - 10 m³/h</td>
<td>14 -18 m³/h</td>
<td>Variable</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>&lt;0.5 bar</td>
<td>&lt;0.5 bar</td>
<td>&lt;1 bar</td>
</tr>
<tr>
<td>Water Quality</td>
<td>Excellent</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Water Consumption</td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Chemicals Consumption</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Footprint</td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

Crystar® Filtration Technology - Available products and comparison to sand filter based on data from field installations.
Partner with Saint-Gobain, one of the world’s top 100 innovative companies. Integrate the leading new technology in recreational water filtration into your systems. You will benefit from the support of our highly qualified technical team to make the integration and adoption of ceramic filtration technology a success.

Pools of the future - today - with Crystar® FT Silicon Carbide Ceramic Filters

- Rödental (Germany, Jan 2012): swimmer pool + non swimmer, 120 m3/h
- Burgebrach (Germany, Jan 2014): swimmer pool + attractions, 85 m3/h
- Bad Windsheim (Germany, Oct 2014): school pool, 36 m3/h
- Köpmanholmen (Sweden, Sept 2016): therapy pool, 72 m3/h
- Bad Dürreheim (Germany, Jan 2017): wellness pool, 80 m3/h
- Noresund (Norway, March 2017): school pool, 50 m3/h
- Asker Holmen (Norway, May 2017): sports and therapy pools, 540 m3/h
- Annecy (France, Sept 2017): swimmer and school pool, 380 m3/h
Saint-Gobain is an international business group located in 66 countries. It is one of the 100 largest industrial companies in the world and has a leading position in all its strategic business areas.

All data, proposals for usage and recommendations given in our literature should be considered as information only. Our liability is limited to such data confirmed by us in writing for special application purposes. However, in no case does this confirmation release the customer from testing our products for their usability in his own field. The new catalogue replaces all literature previously published. The producer reserves the right of improvements of material due to technical developments without preceding notice to the user. Divergent sizes can be manufactured on request also. The design must be appropriate to the material and production process.