



Heat Transfer Fluids

DOWTHERM™ A

Capturing Power from the Sun

The Leading Fluid Technology for Extreme Concentrated Solar Power Requirements



Photo courtesy of Acciona Energia



Photo courtesy of Cobra

Dow Concentrated Solar Power Fluid Solutions Expand Your Horizons

Dow helps you harness the power of the sun with advanced heat transfer fluid technology and support to meet the most challenging system, volume and delivery requirements, all over the world. We've proven it where it counts most: in many of the largest concentrated solar power (CSP) projects under the sun. Today, more than 40 CSP plants filled with DOWTHERM™ A provide enough electrical generation capacity to meet the needs of more than 1 million homes at a savings of over 5 million metric tons of CO₂ emissions per year.

Our total solution approach supports your project from end-to-end with...

- DOWTHERM™ A Fluid, the world's leading fluid for CSP
- In-depth technical support
- World-scale production capacity
- Fluid regeneration opportunities
- Tailored supply chain and logistics capabilities
- Total commitment to safety
- Reliability in supply

We'll help drive your CSP success by seamlessly integrating our robust capabilities with yours to achieve your project goals and create a system that delivers sustainable energy efficiently and reliably for years.

The Most Advanced CSP Fluid Technology

When it comes to CSP, no fluid attracts more power from the sun than DOWTHERM™ A Heat Transfer Fluid.

Proven reliable for more than 80 years in chemical, synthetic fiber and other high temperature processing applications, DOWTHERM™ A fluid is the most thermally stable synthetic organic fluid under the sun. It is capable of withstanding temperatures as high as 400°C (750°F) to collect, transport and store heat in CSP systems while operating in either liquid or vapor phase. The extreme temperature capabilities of DOWTHERM™ A enable this versatile, high purity fluid to operate for years with excellent thermal stability, great heat transfer fluid efficiency, and improved overall fluid life. And because the fluid's viscosity is low throughout its operating temperature range, system efficiency and pumpability are excellent.

DOWTHERM™ A Recommended Operating Range

Liquid Phase	12°C to 400°C (54°F to 750°F)
Vapor Phase	257°C to 400°C (495°F to 750°F)

World-Scale CSP Solutions & Support

Our dedicated supply chain team specializes in engineering innovative, fully integrated production, logistics and delivery solutions tailored to supply large volumes of fluid to your CSP system when you need it, no matter how remote the location or how tight the delivery time frame.

Included is the intermediate and on-site storage required to stage fluid for on-site delivery during narrow CSP installation windows. Our solutions enable rapid rotation of trucks to meet your most compressed system fill schedules.

We also offer expert engineering support from early system design through fluid installation and start-up. And we're there to help you with ongoing maintenance and troubleshooting assistance throughout your plant's operating lifetime. Included are the services and operator training programs you need to maintain maximum system efficiency and extend fluid life, while minimizing downtime for cleaning and other maintenance.

Committed to Safety and Reliability

Safety and reliability are Dow's highest priorities. We provide comprehensive on-site safety training to help protect your CSP operation and its long-term viability. And, we are committed to supporting the safe, on-time and completely successful start up of your CSP system and we have the world-scale infrastructure and track record to prove it.

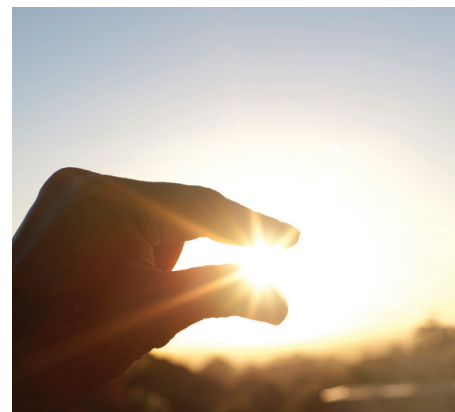
Dow's production and storage capabilities, in addition to flexibility in supply, make it the world's most reliable source of heat transfer fluid for CSP. We also have more than 300 warehouses, 122 terminals and shipping sites in 200 countries worldwide to help further ensure the fluid you need is available wherever you need it.

Most important of all, we have supplied more than 40 large scale CSP plants worldwide without a safety issue or a missed deadline. We are committed to helping you start your plants safely and on time.

Ongoing Innovation

Dow's commitment to CSP innovation goes beyond heat transfer fluids to include remarkable advancements in system technology. Our dual loop CSP design is one example. The system improves efficiency and lowers operating costs by combining the proven reliability of DOWTHERM™ A

and the high temperature capabilities of molten salt to produce 10 percent more electricity than a conventional CSP system with the same size solar field. Dow innovation is ongoing, with continued focus on supporting the CSP industry efforts as it expands the world's supply of sustainable energy.



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We're Ready to Support You

The leaders in the CSP industry have made DOWTHERM™ A the preferred heat transfer fluid for projects worldwide. Today our global sales and technical team is the number one source for CSP fluid knowledge and experience, from system design through successful operation. Call on us to apply our more than 80 years of heat transfer experience to your CSP project. We'll help you harness the power of the sun, no matter where in the world it shines. For more information on our service offering, visit DowCSP.com.

For more information, call...

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