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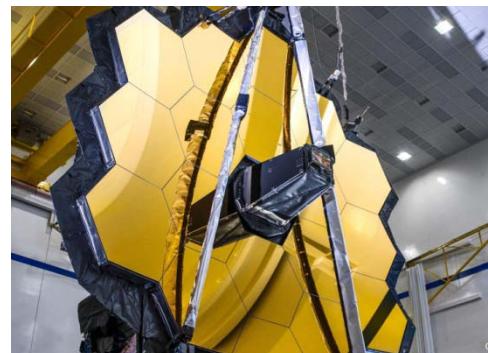
James Webb Space Telescope Launches with Dunmore Aerospace Thermal Materials

Dunmore's multi layer insulation films protect the James Webb Space Telescope on its journey to answer the mysteries of the universe.

Bristol, PA, Dec 27, 2021 - The James Webb Space Telescope (JWST) was launched on December 25, 2021 in French Guiana on top of an Ariane 5 Rocket. Dunmore is proud to announce the use of Dunmore's [thermal control materials](#) on the outer surface and interior of the James Webb Space Telescope. The JWST will collect data in the infrared spectrum by observing light from galaxies that formed over a billion years ago, which will help scientists further understand exoplanets and early periods of the universe. JWST uses passive thermal management materials developed by Dunmore, which helps protect the critical mission from extreme conditions nearly one-million miles away from the Earth.

The James Webb Telescope was developed by NASA, the European Space Agency, and the Canadian Space Agency. This \$10 billion dollar project is set to launch after almost 25 years of planning and development. JWST's objective is to help scientists learn about the early periods of the universe. The James Webb Telescope's primary goal is to study new galaxies, stars and planet formations.

JWST will also help scientists discover and gain an understanding of exoplanets' atmosphere, weather, and seasons, while also looking for signs of past or present life forms.



Credit: NASA / Chris Gunn

JWST has many distinguishing features. The large gold coated primary mirror will capture light from the faintest stellar objects, but in order to do this it needs to stay very cold. Even sunlight reflected off the far-away Earth would be sufficient to warm the telescope's instruments beyond optimal functionality. In combination with the tennis-court sized sunshields, the entire structure and all the instrumentation is covered in [multilayer insulation](#) blankets to keep all the systems at their optimal temperatures. Dunmore produces materials that can withstand thermal radiation and keep the telescope at 40 Kelvin (-233 degrees Celsius). Without the help of Dunmore's thermal control materials, the telescope would begin to overheat. The JWST journey will take 6 months to reach the Lagrange point (L2) and be in orbit for 5-10 years. Dunmore's materials

must be able to withstand harsh space conditions for the entire time to ensure the telescope's mission is a success.

"The James Webb telescope brought together the top space agencies and companies from around the world with the goal to search for new life and understand the origins of the universe. We are proud to be a part of one of the most important scientific space missions of our lifetime," said Art Mallett, Vice President of Dunmore Aerospace.

About DUNMORE

Dunmore is a global manufacturer of engineered coated and laminated films and foils with manufacturing facilities in the U.S and Germany. Dunmore produces coated film, metallized film and laminated film substrates for the aircraft, [spacecraft](#), photovoltaic, graphic arts, packaging, insulation, and electronics industries. Dunmore is a Steel Partners company and is ISO 9001:2015 and OSHA VPP Star certified. For complete information on Dunmore's products, services and industries served, please visit <https://www.dunmore.com>.

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