

What Is Green Polypropylene?

Plastic has become such a commonplace component of our everyday lives that we barely notice its existence anymore, despite it being present in almost everything we use. For example, the bottle from which you drink water, the container in which your food is delivered and even the device upon which you're reading this article likely contains elements of polypropylene (or a similar plastic substance).

However, the production of plastic entails significant harmful emissions of greenhouse gases, while the subsequent disposal of these products damages the environment, too. As such, scientists have been exploring green alternatives to polypropylene – and a breakthrough agreement between businesses from the UAE and Japan could hold the key to green polypropylene production on a large scale.

A greener form of plastic

Despite the concerns associated with plastic, the global polypropylene market is [projected](#) to enjoy a compound annual growth rate (CAGR) of 3.5% each year until 2030, reaching a total value of almost \$160 billion. As such, it's clear that more environmentally friendly methods of manufacturing the substance must be found if we are to achieve our goals of cutting emissions and stabilising the planet's climate.

Green polypropylene could help in this respect. Mixing green hydrogen (that which is produced with the aid of electricity generated by renewables) with carbon dioxide extracted from other industries can create e-methanol, which is then later converted into propylene and polypropylene. In this way, a green polypropylene plant could mitigate emissions (by using green hydrogen) as well as finding a use for a damaging waste gas (CO₂).

UAE and Japan forging ahead

Abu Dhabi-based green energy company Masdar are at the forefront of this field and recently signed an agreement with two Japanese firms, Inpex and the Mitsubishi Chemical Group. Under the terms of the arrangement, the three entities will work together to investigate the feasibility of manufacturing the substance on a commercial scale.

“We are very excited to be partnering with flagship Japanese companies, Mitsubishi Chemical Group and INPEX. Our organizations share a firm belief in the power of innovation to create a better tomorrow,” [explained Mohamed Jameel Al Ramahi](#), CEO of Masdar. “Today’s agreement will enable us to join forces and further unlock the potential of green hydrogen to drive industry and growth while reducing emissions.”

Deepening ties

The accord between Masdar and the two Japanese businesses was announced at the Japan-UAE Business Forum in the Emirati capital. It was attended by the Japanese Prime Minister Fumio Kishida and Sheikh Hamed bin Zayed, who sits on the Abu Dhabi Executive Council. The Forum in general and the agreement in particular are just the latest in a long line of cooperative actions undertaken by the two countries as they strengthen their relationship.

For example, the total amount of trade conducted between the two nations amounted to a staggering \$51.7 billion in 2022, with oil exports accounting for the majority of that figure. However, non-oil trade reached \$14.7 billion last year, with Emirati imports of Japanese non-oil products accounting for the lion’s share of \$12 billion. Moving forwards, the two nations plan to focus on enhancing their investment ties, with an emphasis on green energy and other sustainable initiatives.