

## NOVA-P™ APR2511P

### Maleic Anhydride Modified Polyethylene Powder for Steel Composite Pipe

#### CHARACTERISTICS

- Advanced adhesion to substrates
- Excellent adhesive durability
- Maintain polyethylene property
- Compatible with polyethylene and good processibility

#### APPLICATIONS

- Thermoplastic adhesive powder for 3 layer coating systems for oil & gas line pipe
- Adhesive powder is used as a tie-layer in 3 layer steel pipe coating systems

#### CUSTOMIZE

- Particle Size
- Narrow Cut Particle Size Distribution

#### Description

NOVA-P™ APR2511P is especially suitable for multi-layer steel pipe coating systems. Polyethylene based adhesive powder developed by TWO H Chem, NOVA-P™ APR2511P has easy processability, advanced adhesion strength and long durability.

Property	Test Method	Unit	Test Value
Melt Index (190 °C / 2.16kg)	ISO 1133 ASTM D1238	g/10 min	5.0
Density	ISO 1183-3 ASTM D1505	g/cm <sup>3</sup>	0.930
Melting Point (DSC)	ISO 3146 ASTM D3418	°C	124
Vicat Softening Point	ASTM D1525	°C	102
Brittleness Temperature	ASTM D746	°C	< -70
Tensile Strength	ASTM D638	kg/cm <sup>2</sup>	250
Elongation	ASTM D638	%	> 600
Particle Size (Sieve Test)	ASTM D1921	%	15.0 Max > 300 μm 25.0 Max < 125 μm
Adhesion Strength (to Steel Plate)	TWO H Method	kg/2.5cm	> 20
Morphology	Solid Rounded Particle		
Visual Appearance	Naturally White Powder		
Packaging	20 Kg PP Woven Coated Kraft Paper Bag/ PE Inner Bag 450 kg Carton Box/ PE Inner Bag		

The product described herein is manufactured by TWO H Chem Ltd. NOVA-P™ is a trademark of TWO H Chem Ltd. The above data and results obtained are average values from laboratory testing and are not to be construed as specifications.

**Safety and Handling Considerations**

Material Safety Data (MSD) sheets for are available from TWO H Chem Ltd. and its distributors. MSD sheets are provided to help customers satisfy their own handling, safety, and disposal needs, and those that may be required by locally applicable health and safety regulations, such as OSHA (U.S.A.), or WHMIS (Canada). MSD sheets are updated regularly; therefore, please request and review the most current MSD sheets before handling or using any product. All users of our products are urged to retain and use the MSDS. The following comments apply only to materials which are used unmodified and processed according to good manufacturing practices; additives, processing aids or other materials used in formulating, fabrication and/or finishing steps have their own safe-use profile and must be investigated separately.

**WARNING: Polymer dust particles in the atmosphere are combustible and present a potential explosion hazard. Prevent dust accumulations and dust clouds. Dust layers can be ignited by spontaneous combustion or other ignition sources. Keep away from heat, sparks, flame and all other ignition sources. Keep container closed. Clean up dust accumulations. For proper safety of personnel and property, the container should be emptied in compliance with NFPA 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries." Processes using spray application or fluidized bed operation should be in accordance with NFPA 33, "Standard for Spray Application Using Flammable and Combustible Materials." Exercise caution when dispensing this product in or around combustible environments as the possible occurrence of a static discharge could ignite dust or vapors and cause a fire or explosion. Evaluate the need for grounding of equipment and container. Modification or use of the product in a way that enhances the dispersion of the particles in the atmosphere could significantly increase the potential for an explosion.**

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