



# Product Data Sheet

## Emralon® 318

Resin bonded PTFE low friction dry film lubricant (water based)

### DESCRIPTION

This Emralon coating is one of a series of Acheson resin-bonded lubricant coatings designed to provide dry film lubrication and release properties in a variety of industrial and consumer applications.

Emralon 318 is a resin-bonded polytetrafluorethylene coating with excellent lubricating and non-stick properties. As the carrier liquid is water, Emralon 318 can be applied in places where solvent based products cannot be used where ventilation is limited. Emralon 318 coatings being flexible can be applied on non-rigid materials such as plastics (e.g. gaskets) as well as rigid substrates such as metals.

### TYPICAL PROPERTIES (of wet product)

|                                      |  |
|--------------------------------------|--|
| Lubricant :                          | PTFE   |
| Binder :                             | thermoplastic resin                                      |
| Carrier :                            | water  |
| Solids content :                     | 38 - 40%   |
| Viscosity<br>(Ford cup 4, 20°C) :    | 13 - 17 s  |
| Density :                            | 1170 kg/m <sup>3</sup>                                   |
| Flashpoint<br>(Cleveland open cup) : | > 100°C  |
| Coverage :                           | 23 m <sup>2</sup> /kg at 10 µm film thickness            |
| Shelf life :                         | 12 months from date of qualification under original seal |

### TYPICAL PROPERTIES (as cured)

|                                  |                                      |
|----------------------------------|--------------------------------------|
| Colour :                         | translucent, milky white             |
| Texture :                        | smooth                               |
| Static coefficient of friction : | 0.07                                 |
| Recommended film thickness :     | 5 - 15 µm                            |
| Max. service temperature :       | 70°C continuous<br>90°C intermittent |
| Fuel and oil resistance :        | good                                 |
| Solvent resistance :             | good                                 |

### METHOD OF USE

#### Surface Preparation

All substrates should be clean and free of dirt and grease. To ensure maximum adhesion clean the substrate with a suitable solvent or other cleaning method. Parts should be completely dry before application of Emralon 318.

#### Application

Emralon 318 can be applied by spray, dip, brush, dip spin or tumble spray.

Application by spray gives the more uniform coverage of the substrate.

#### Dilution and Mixing

The product can be applied undiluted but is usually diluted before application. As diluents use water or ethanol. Ethanol can be used to effect faster drying. For intermediate drying speed water and ethanol can be blended.

The following dilution ratios are recommended:

|                             |   |
|-----------------------------|---|
| For application by spray    | : 5 parts of product to 1 part diluent  |
| For application by dip      | : 2 parts of product to 1 part diluent  |
| For application by dip spin | : 2 parts of product to 1 part ethanol. |

All ratios are by weight.

Before application ensure that no sediment remains on the bottom of the container.

The product should be completely homogeneous during application. Continued mild stirring during dilution and application is recommended.

#### Drying

The coating dries to touch in air in approx. 15 minutes or by heating at 70°C in 5 minutes. The coating is completely dry after 3 hours in air or ½ hour at 70°C.

---

**STORAGE/  
HANDLING**

Store Emralon 318 at temperatures between 5 and 30°C. Keep from freezing.

---

**HEALTH & SAFETY**

Please consult Material Safety Data Sheet.

---

**NOTES**

Emralon® is a registered trademark of Henkel AG & Co KGaA.

---

### **North America**

Henkel Corporation  
32100 Stephenson Highway, Madison Heights, MI 48071  
USA  
Tel +1 248 583-9300  
Fax +1 248 583-2976

### **Asia Pacific**

Henkel Asia-Pacific  
928 Zhangheng Road, Pudong, Shanghai  
201203 China  
Tel +86 21 2891 8000  
Fax +86 21 2891 8971

### **Latin America**

Henkel Ltda.  
Rua Howard A. Acheson Jr., 279  
06711-280 - Jardim da Gloria, Cotia - SP  
Brasil  
Tel +55 11 2246 8500  
Fax + 55 11 2246 8528

### **Europe, Middle East, Africa**

Henkel Nederland Acheson B.V.  
Postbox 1, 9679 ZG Scheemda  
the Netherlands  
Tel +31 (0) 597-670500  
Fax +31 (0) 597-670599



Henkel is dedicated to meeting the needs and expectations of customers without compromising its commitment to sustainability. Henkel supports sustainability through its continuous efforts to improve the safety, health and environment of the communities in which it operates. For detailed information on Henkel's sustainability program, visit [www.achesonindustries.com](http://www.achesonindustries.com). The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operating conditions. No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without the authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the American Chemistry Council's Responsible Care program.