

# Our worldwide sales network can assist you in opening up new markets.

## Sales offices:

### Asia:

- Kuala Lumpur
- Manilla
- Taipei
- Beijing
- Seoul
- Shanghai
- Tokyo
- Kyoto
- Ho Chi Minh City
- Bangkok
- Singapore
- Melbourne
- Jakarta
- Mumbai

### Europe:

- Paris
- Birmingham
- Düsseldorf
- Amsterdam
- Milan
- Copenhagen
- Barcelona
- Zürich
- Moscow
- Praha
- Warsaw

## Customers service:

### Arkema SA

Cours Michelet - La Défense 10  
92091 Paris La Défense Cedex  
FRANCE  
Tel : (+33) (0)1 49 00 71 30  
Fax : (+33) (0)1 49 00 80 44

### Arkema Inc.

2000 Market Street  
Philadelphia  
PA 19103-3222  
USA  
Tel : (+1) 800 628 33 91  
Fax : (+1) 215 419 74 97

### Arkema Quimica Ltda (Brasil)

Avenida Ibirapuera 2.033  
4º Andar  
Bairro : Moema  
04029-901 SAO PAULO  
BRASIL  
Tel : (+55) 11 21 48 85 60  
Fax : (+55) 11 50 51 47 80

### Arkema (China)

Unit 1901-1902, Block B  
Jianwai SOHO  
N°39, East Third Ring Road  
Chaoyang District  
Beijing 100 022  
P. R. CHINA  
Tel : (+86) 10 5869 5620 ext. 390  
Fax : (+86) 10 5869 5637

### Arkema K.K (Japan)

Technical Polymers  
Fukoku Seimei Bldg. 15F  
2-2-2 Uchisaiwaicho  
Chiyoda-ku  
Tokyo 100-0011  
JAPAN  
Tel : (+81) 75 326 75 03  
Fax : (+81) 75 326 75 24

### Arkema (Korea)

11 F, Oriental Chemical  
Building  
50, Sogong-dong, Jung-gu  
Seoul, 100-718, KOREA  
Tel : (+82) 2 37 03 68 21  
Fax : (+82) 2 37 03 68 91

### Arkema Pte Ltd (Singapore)

#01-01A, the alpha,  
Science Park 2  
10 Science Park Road  
117 684 SINGAPORE  
Tel : (+65) 6419 9199  
Fax : (+65) 6419 9001

### For other regions in Asia, please contact:

Tel : (+81) 75 326 74 95  
Fax : (+81) 75 326 75 24

With global brands like Rilsan®, Pebax® and Platamid®, unique products like Rilsan® PA11 and leading capacities in Rilsan® PA11 and 12, Arkema's Technical Polymers Division differentiates itself in the industry by providing its customers with global coverage and superior regional service from production and research facilities in Europe, Asia, and the USA.

A global chemical player, Arkema consists of 3 coherent and related business segments: Vinyl Products, Industrial Chemicals, and Performance Products. Present in over 40 countries with 18,400 employees, Arkema achieves sales of 5.7 billion euros. With its 6 research centers in France, the United States and Japan, and internationally recognized brands, Arkema holds leadership positions in its principal markets.

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Arkema expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement.

See MSDS for Health & Safety Considerations

The information contained in this document is based on trials carried out by our Research Centres and data selected from the literature, but shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment from our part. Our formal specifications define the limit of our commitment. No liability whatsoever can be accepted by Arkema with regard to the handling, processing or use of the product or products concerned which must in all cases be employed in accordance with all relevant laws and/or regulations in force in the country or countries concerned.



Technical Polymers Division  
4-8, cours Michelet - La Défense 10  
F-92091 Paris La Défense Cedex  
Tél: +33 (0)1 49 00 80 80 Fax: +33 (0)1 49 00 83 96  
www.arkema.com

[www.rilsan.com](http://www.rilsan.com)  
[www.rilperm.com](http://www.rilperm.com)  
[info.rilsan@arkema.com](mailto:info.rilsan@arkema.com)

**RILSAN® AESN BLACK P110TL DELIVERS EXCELLENT HEAT AGEING AND IMPROVED HYDROLYSIS RESISTANCE FOR COOLING LINES**



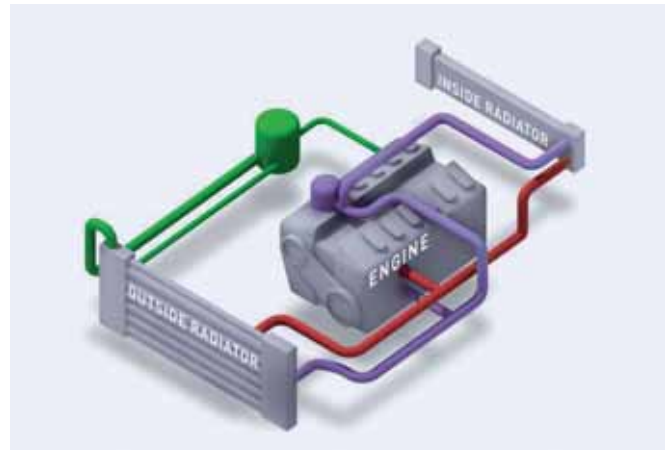
**RILSAN® AESN BLACK P110TL** is a modified PA12 featuring Arkema Unique multiphase alloy resulting in minimum of modifier and maximum of polyamide. The new formulation comes with excellent resistance against chemical and heat ageing for cooling lines application. Standard Polyamide doesn't pass the highly demanding requirements. In the past, only rubber and metal could fulfill requirements.

**Part Description:** RILSAN® AESN BLACK P110TL

**Key performances:** RILSAN® AESN BLACK P110 TL offers:

- Resistance to hot air:  
125°C continuous and 150°C peak
- Resistance to Coolant Liquid:  
-40°C to 110°C continuous/  
135°C peak with the coolant pressurized at 1bar
- Impact, pressure, fatigue and vibration resistance

**Process Technology:** Extrusion



**Sample Application:** Cooling circuit applications such as overflow tube.

**Values Delivered:** RILSAN® AESN BLACK P110TL replaces large diameter rubber hoses and metal tubing. In addition, the cost and weight are lower than rubber or steel. RILSAN® AESN BLACK P110TL also simplifies assembly (cost effective, less component & quick fitting) and provides design flexibility

**Approval:** Approved by PSA, Ford and Volvo. (Specification details available on request)