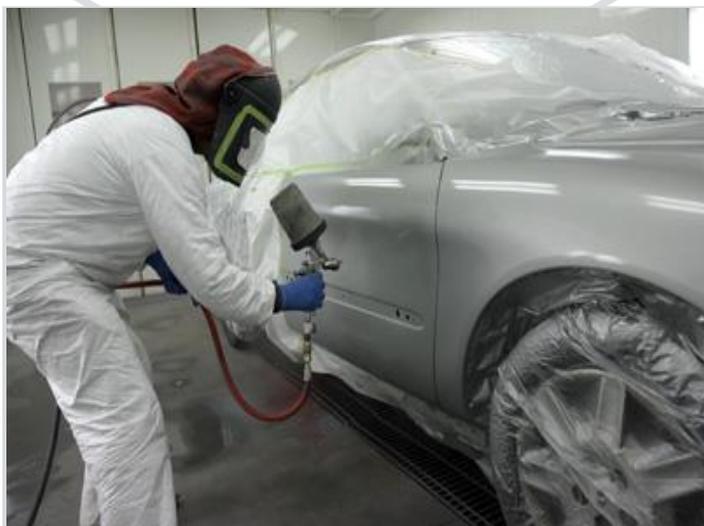


# Blocked Isocyanates



## OEM – INDUSTRIAL COATINGS



### DESCRIPTION

Leeson Polyurethanes Ltd. produce a range of blocked isocyanate systems. The range aims to overcome some of the limitations with traditional PU technology, namely:

### LIMITATIONS OF TRADITIONAL PU TECHNOLOGY

Stability in 1K systems

Pot life restrictions in 2K systems

Sensitivity to moisture, both ambient and trace levels in raw materials

Increasing concern regarding free isocyanate levels in systems

### BENEFITS OF LEESON POLYURETHANES BLOCKED ISOCYANATE RANGE

- ◆ A range of blocking agents available to give different unblocking temperatures
- ◆ Aliphatic based technology, giving excellent UV colour stability
- ◆ Flexible Formulation approach, offering tailored solutions to customers
- ◆ Product compatible with polyester, urethane and acrylic resins
- ◆ Range of DMP based technology offers lower unblocking temperatures

Product Reference	Isocyanate Type	Blocking Agent	Viscosity@ 23C, mPa.s	Equivalent Weight (as supplied)	Solids (%)	Solvent	Application
PU5210	IPDI Trimer	DMP	3,500	539	65	C9 Aromatic	Automotive and Coil Coating
PU5208	HDI Buiret	DMP	1,100	410	70	PM/EA	Coil
PU5209	HDI Buiret	DMP	2,250	410	70	C9 Aromatic	Coil and Electrostatic
PU5207	HDI Trimer	DMP	600	410	70	PM	Automotive and Coil Coating
PU5211	HDI Trimer	MEKO	1,400	400	70	PM	Automotive and Coil Coating



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### FURTHER INFORMATION

The Leeson Polyurethane range includes 4 blocking agents, allowing customers to choose the temperature (and also the isocyanates), they wish to use. Detailed below are the 4 blocking agents used within our range.

Blocking Agent	Unblocking Range (°C)
Diethyl malonate (DEM)	100-120
Dimethyl pyrazole (DMP)	110-120
Methylethyl ketoxime (MEKO)	140-160
$\epsilon$ -Caprolactam ( $\epsilon$ -CAP)	160-180

### IMPORTANT NOTE

Leeson Polyurethanes' products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which can be obtained on request.

### HOW DOES THE TECHNOLOGY WORK?

During manufacture, we react the blocking agent onto the isocyanate. This gives an inert and non-hazardous material, at standard ambient temperatures.

The blocked isocyanate can be compounded into suitable coating systems, which are applied and dried. Once cured at the correct unblocking temperature, the isocyanate is able to react with the functional co-binder polymer, to give a final cross linking cure.

### TYPICAL APPLICATIONS

OEM – coil coating; automotive coatings; electrostatic coatings; white goods.

### ENVIRONMENTAL IMPACT

The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless surface reduce the need for repairs, maintenance and cleaning. Environmental and health considerations are controlled during manufacture of the products by Leeson Polyurethanes staff.

### FURTHER INFORMATION

To ensure you are specifying a fit for purpose system for your application please consult our Area Sales Manager for your area or visit our website.



**Leeson Polyurethanes Ltd.**

Hermes Close, Warwick, CV34 6RP, UK.

Tel: +44 (0) 1926 833367 Fax: +44 (0) 1926 881469  
sales@lpultd.com | www.lpultd.com

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