

DR043 Semi-Rigid Polyurethane

1. Introduction

DR043 reacts rapidly with Part B to form a semi-rigid polyurethane adhesive. The product has been designed for use with two-part cartridge dispensing systems. DR043 cures at ambient temperature to give a high degree of toughness.

This is a development product and therefore information about the behaviour and properties of the components and the cured product is limited. A full technical datasheet will be prepared in due course. Please direct any queries to Adhesive Brokers Limited.

2. Applications

DR043 has been formulated for use primarily as an adhesive for bonding and fixtures and for general manufacturing assemblies.

3. Specification

Property	Units	Minimum	Maximum
Gel Time (10g 20°C)	Seconds	30	60
Tack Free Time (10g 20°C)	Minutes	1	3
Full Cure (10g 20°C)	Hours	2	4
Hardness at full cure	Shore D	70	80

4. Mix Ratios

By Weight: 0.89 parts DR043 to 1.00 parts Part B

By Volume: 1.00 parts DR043 to 1.00 parts Part B

The components should be dispensed by means of the cartridges provided. These components are also available in bulk for machine dispensing.

Atlas Polymers.

Technical Data Sheet

5. Typical Properties

Property		Typical Value	Units
Colour	Part A	Black	-
	Part B	Amber/brown	-
	Mixed	Black	-
S.G.	Part A	1.02	-
	Part B	1.13	-
	Mixed	1.08	-
Gel Time (10g 20°C)		50	Seconds
Tack-Free Time (10g 20°C)		120	Seconds
Full Cure (10g 20°C)		3	Hours
Hardness at full cure		75	Shore D

6. Preparation of Components

Neither component requires preparation prior to use, and may be used directly from the cartridge.

The components may be used at room temperature and require no pre-warming prior to use. If the product requires a postcure details will be given in the METHOD OF USE section.

7. Substrate Preparation

Substrates should be clean and dry and primed if necessary. For details of suitable primers please contact Adhesive Brokers.

Substrates should require no pre-warming, though if ambient conditions are particularly cold then warming to a temperature of 15-20°C will assist the cure of the material. Be aware that cold temperatures will result in longer cure and demould times.

8. Method of Use

1. Place cartridge into gun and remove nose-plug.
2. Expel a small amount of material to waste in order to align the pistons and ensure that the two components are expelled together.
3. Attach mixer
4. Apply product to the substrate according to the specific instructions for repair, gap filling and so on.
5. Allow to cure for 20-30 minutes before attempting to sand-down.

Postcure

This material will cure adequately at ambient temperatures.

6. Handling and Storage

The relevant Safety Data Sheets should be read carefully before using this material. Good housekeeping is important with this material as with all chemicals. Spillages should be wiped up immediately and containers wiped clean after use.

The components should be stored in their original cartridges in a dry place at 5-25°C.

The unused cartridge has a minimum shelf life of 6 months from the date of manufacture when stored correctly.

7. Health and Safety

The Safety Data Sheet provides information on the health and safety aspects of this material. Please contact Atlas Polymers if you do not have a Safety Data Sheet for each of the components of this material.

The Part A component is not classified according to the requirements of the CHIP regulations. However care should be taken to avoid direct contact and gloves, goggles and impervious overalls should be worn.

The Part B isocyanate is classified as HARMFUL by inhalation. In addition it may cause sensitisation by inhalation and skin contact and is classified as IRRITANT to eyes, respiratory system and skin. At room temperature the vapour hazard is low but care should be taken not to allow vapours to accumulate. This is especially likely if the product is heated. Avoid direct contact with skin and eyes by means of gloves, goggles and impervious overalls.

8. Suitability for Use

The information in this datasheet is given to the best of our knowledge and belief but without warranty or liability.

The user must establish the suitability of the material for the intended application by carrying out any appropriate tests.

Finished products produced from any batch of our materials must be subjected to comprehensive standards of quality control by the user.

9. Additional Information

Please note that this is a development material and as such the amount of information regarding this product is limited. The product has not been tested for all applications and it is strongly recommended that customers carry out adequate trials to determine the suitability of this material for the intended use.

No liability will be accepted for direct or consequential losses arising from the use of this material. However any comments or suggestions relating to improving the processing or characteristics of this material will be very welcome.