

## EL266D

A two-part system designed for in-shore and offshore cable jointing and encapsulation.

### Application

- In-shore and offshore cable jointing
- Encapsulation

### Key Properties

- High adhesion
- Non-toxic
- Easy to use
- Excellent resistance to seawater
- Excellent electrical insulation characteristics

### Description

- Basic Two-component polyurethane system
- Resin RL266D
- Hardener HL266D

### Physical Data (approx. – values)

	Resin	Hardener	Mixed
Colour	Black	Brown	Black
Specific Gravity	0.96	1.24	1.01
Viscosity (mPas) @ 25°C	2000 - 2500	200 - 250	1000 - 1500

### Cure Schedule (for 2, 8 and 18 litre kits)

Temperature (°C)	Usable life (Minutes)	Gel time (Minutes)	Initial cure time (Hours)	Full cure time (Days)
10	30	100	24	3
25	25	70	12	2
30	15	35	6	1

\*2mm cross sectional area    \*\*for maximum properties

Cure time will depend on cross sectional area, ambient conditions and mixing method. The above data is given as a guide only.

Hotter temperatures may be used for faster cure but will result in higher post cure shrinkage and higher cure exotherm.

Experimentation and testing is suggested to avoid side effects.

### Processing

Mix ratio by weight        2.84:1  
Mix ratio by volume        3.65:1

### Approvals

RoHS compliant	Yes
UL94 V-0	No
REACH (SVHC concentration)	0%

### Typical Properties (Resin & Hardener only)

Test	Result	Unit
Hardness	85	Shore A
Operating Temperature	- 55 to + 120	°C (application & geometry dependent)
Thermal Conductivity	< 0.3	W/mK
Tensile Strength	6	MPa
Elongation at Break	150	%
Glass transition temperature	-60	°C
Compressive Yield Strength	< 10	MPa
Coefficient of Linear Expansion	70 - 90	ppm/°C
Peak exotherm (1000g @ 20°C)	<70	°C
Volume Resistivity	12 x 14 <sup>10</sup>	ohm-cm
Surface Resistivity	13.5 x 15.5 <sup>10</sup>	ohm
Electric Strength	25	kV/mm

### 3-part Extended Version

System EL266D is also available in an 18-litre kit with a sand extender supplied.  
The extender gives the added benefit of: -

1. Increased economy
2. Lower peak exotherm
3. Lower shrinkage
4. Higher modulus

### Processing 3-part system (by weight)

Resin 200 parts  
Hardener 100 parts

### Typical Properties (Resin & Hardener only)

Shore Hardness	A85 - 95
Thermal Conductivity	< 0.5 W/m. K
Usable life (20°C)	20 minutes
Density	1.4
Peak exotherm (1000g @ 20°C)	<50°C

The sand extender will substantially increase viscosity of the resultant mix and the additional mixing usually results in some entrapped air. To minimise entrapped air, ensure joint is as dry as possible and mix and pour within 12 minutes. Keep mix dry and protect kit from rain whilst mixing. For ease of application and mixing the 2-part system is recommended.

The 3-part kit is particularly suited to high volume joints where lower shrinkage, lower exotherm, and economy are required.

The above are typical values and will vary depending on the cured mass and application. Hotter temperatures may be used for faster cure but will result in higher post cure shrinkage and higher cure exotherm. Experimentation and testing is suggested to avoid side effects.

For maximum properties a post cure may be required – call our Technical Service Department for advice.

### Packaging

EL266D is available in Bulk, Twinpacks Sets & Kits

### Availability

Available through [sales@robnor.co.uk](mailto:sales@robnor.co.uk)

### Cartridge Mixing - Part Numbers

Not Available	
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It is essential for best results that the cartridge is 'balanced' before use to ensure correct mixing.

Loading the cartridge into the gun before attaching the mixer element and pumping the gun to push a small amount of the contents forward will achieve this.

Wipe the excess from the cartridge tip and add the static mixer.

The cartridge is now ready for use.

### Twinpacks - Part Numbers

EL266D/BK/1000	EL266D/NC/500
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Twinpacks are pre-weighed resin and hardener components contained in a tough flexible film, separated by a removable clip and rail. Once the clip and rail is removed the resin and hardener is thoroughly mixed within the bag and is immediately ready for use. Mixing will normally take ~ 2 minutes due to the viscosity; but pay special attention to the corners. Twinpacks are ideal for small to medium production runs, prototyping and on-site or field use. The twinpack weight/volume may also be tailored to a specific size on request.

For further details please visit [www.robnor-resinlab.com](http://www.robnor-resinlab.com)

### Bulk Materials - Part Numbers

Available on request	
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Both resin and hardener are supplied in 5kg, 25kg and 200ltr drums and fully evacuated and ready for use.

Care should be taken to ensure when mixing the resins air is not entrained in the mixture. If this is unavoidable the mixed resin and hardener should be re-evacuated before dispensing. The bulk resin and hardener materials can be dispensed from suitable dispensing machinery, details provided by Fluid Research on request.

## Kits and Sets Part Numbers

EL266D/BK/8KGKIT	EL266D/BK/8KGSET
EL266D/BK/12KKIT	

<b>Kit Availability</b>	2.3	Litre kit	2-part – 100% liquid
	18	Litre kit	2-part – 100% liquid
	18	Litre kit	3-part – includes extender

Kits and Sets are provided in separate containers to the correct ratio.

In Kit form, pour the hardener into the larger resin container and use it as a mixing vessel.

Stir well using an appropriate mixer until homogeneous.

Note: Incomplete mixing will be characterised by erratic or partially incomplete cure even after extended time periods.

## Cleaning

All equipment contaminated with mixed material should be cleaned before the material has hardened. TS130 is a suitable non-flammable cleaning agent, although other solvents may be found suitable. TS130 will also remove cured material provided it is allowed to soak for a number of hours.

## Storage and Shelf Life

The preferred storage temperature is 5-35°C, however, temperatures as low as -15°C have been used with no detriment. It is important to make sure that the product is brought back up to room temperature BEFORE opening the container. This is to avoid any water condensation contaminating the system.

All resin should be stirred if necessary and must be homogeneous before use.

Once used the containers must be kept sealed to prevent effects from water, air or contaminants.

The material will have a shelf life of at least two years.

## Health and Safety

Polyurethane resin systems may cause sensitisation by skin contact or inhalation may be corrosive, harmful or toxic. It is therefore strongly recommended that skin and eye contact is avoided by the using of appropriate personal protective equipment such as gloves, safety glasses or goggles and overalls. Wash any contamination from the skin immediately and thoroughly and do not eat, smoke or drink in the working vicinity.

Under normal working conditions a good source of ventilation is adequate, however if the material is heated, or where vapour levels are likely to exceed the occupational exposure limits appropriate respiratory protection must be worn. Local exhaust ventilation (LEV) may be required especially for curing ovens or where large volumes of material are curing. The above is given as a guide only; please refer to RL/HL266D Health and Safety data or our Technical Service Department for individual/specific advice.

## Copyright & Warranty - Robnor Resinlab Limited

The results and information above does not constitute a specification and is given in good faith and without warranty. The information is derived from test/or extrapolations believed to be reliable and is quoted for guidance only. The product is offered for evaluation on the understanding the customer satisfies himself that the product is suitable for the intended application by proper evaluation and testing.

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