

# Technical Data Sheet

## LOXEAL INSTANT ADHESIVE 29

### Description

High viscosity instant adhesive based on ethyl cyanoacrylate. Designed for bonding plastic and rubber together or with metal. High viscosity allows to fill large gaps. The slow fixture time allows adjustment of parts during assembly.

### Physical properties

|                            |   |
|----------------------------|---|
| Composition:               | ethyl cyanoacrylate                     |
| Colour:                    | black                                   |
| Viscosity (+25°C - mPa s): | 500 - 1500                              |
| Specific weight (g/ml):    | 1,06                                    |
| Gap to fill:               | 10 - 200 microns                        |
| Flash point:               | see MSDS                                |
| Shelf life:                | 6 months in original unopened packaging |
| Temperature range          | -50°C/+80°C                             |

### Curing properties

Curing rate depends on the substrate used, on the gap, on the temperature and on the environmental humidity.

| Substrate       | Fixture Time (seconds) |
|-----------------|------------------------|
| <b>Plastics</b> |                        |
| PVC:            | 20 - 50                |
| Phenolic Resin: | 10 - 40                |
| ABS:            | 15 - 40                |
| Polycarbonate:  | 30 - 90                |
| <b>Metals</b>   |                        |
| Steel:          | 20 - 50                |
| Aluminium:      | 10 - 30                |
| Zinc:           | 40 - 100               |

### Various substrates

\* Neoprene/NB: 5

In case setting time is unacceptably long, we recommend the use of Loxeal Activator 9. IN case of usage with PE, PP, Silicone rubbers or PTFE Loxeal Primer 7 is always recommended.

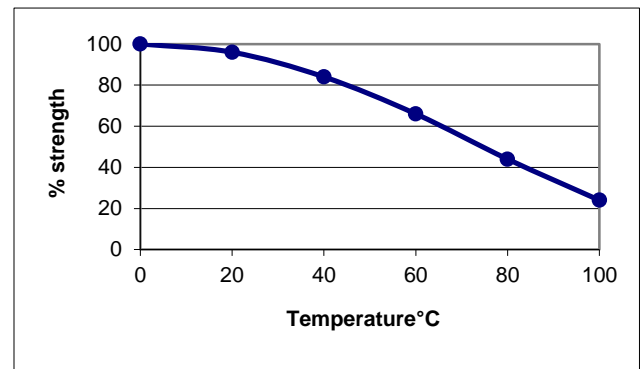
### Proprieties of cured material (typical)

|  |                       |
|--|-----------------------|
| Tensile strength ISO 6922 at +25°C   |                       |
| Steel (N/mm <sup>2</sup> ) :   | 18 - 25               |
| Tensile strength – on synthetic rubber at +25°C - ISO 6922 after 30" (N/mm <sup>2</sup> ): | > 2                   |
| after 24h curing (N/mm <sup>2</sup> ):   | 5 - 15                |
| Shear strength ISO 4587 (N/mm <sup>2</sup> ):  |                       |
| Zinc:  | 13 - 18               |
| Steel:   | 20 - 30               |
| Aluminum:  | 15 - 25               |
| ABS:   | > 5                   |
| PVC:   | > 4                   |
| Phenolic:  | > 5                   |
| Polycarbonate:   | > 6                   |
| Softening range:   | +160°C/+170°C         |
| Coefficient of Thermal expansion (1/K):  | 80 x 10 <sup>-6</sup> |
| Thermal conductivity (W/(m K)):  | 0,1                   |
| Electrical resistivity DIN 53482 (Ω mm):   | >10 <sup>15</sup>     |

|   |                       |
|---|-----------------------|
| Surface resistivity (Ω):                | 10 x 10 <sup>15</sup> |
| Dielectric strength ASTM D 149 (kV/mm): | 25                    |
| Dielectric constant DIN 53483 (1MHz):   | 5,2                   |

### Environmental resistance

The graph below shows the mechanical strength of the product (%) vs. temperature. Specimen steel - ISO 4587



### Chemical resistance

Aged at indicated temperature under conditions below after 24 hours from polymerization.

| Substance | °C | Resistance after 100 h | Resistance after 500 h | Resistance after 1000 h |
|-----------|----|------------------------|------------------------|-------------------------|
|-----------|----|------------------------|------------------------|-------------------------|

|                       |    |           |           |          |
|-----------------------|----|-----------|-----------|----------|
| Motor oil             | 40 | good      | good      | good     |
| Alcohols              | 25 | excellent | excellent | discrete |
| Gasoline              | 25 | excellent | discrete  | discrete |
| Relative humidity 90% | 40 | discrete  | discrete  | low      |
| Refrigerating gases   | 25 | good      | good      | good     |

\* For information on resistance with other chemicals, contact Loxeal Technical Service

## Directions for use

1. Clean and degrease all surfaces with Loxeal Cleaner 10 and allow drying before applying the adhesive.
2. For bonding low surface energy plastics such as PE, PP, PTFE, apply Loxeal Primer 7 on bonding surfaces and allow drying.
3. To reduce curing time of some hard to bond rubbers and plastics, using Activator 9 is recommended. After its application on one surface, let it dry.  
Any surplus adhesive outside the joint can be instantaneously fixed with Activator 9 after assembling.
4. Use the proper bottle to apply the adhesive, avoiding the usage of improper tools. Bring the components together quickly and correctly aligned (fast curing does not allow any repositioning).
5. Apply sufficient pressure for a few seconds to fix the components and clamp them until they are completely fixed.
6. Wait 24-72 hours until full cure before any mechanical stress.

## Warnings

This adhesive is not approved for usage neither with pure nor with gaseous oxygen.

## Storage

We recommend to store product in a cool and dry place at temperature non exceeding +20°C. For better and enhanced shelf life, keep product in a refrigerator at +2°C/+7°C. To avoid contaminations do not refill containers with used product. For more information on applications, storage and handling contact Loxeal Technical Service

## Safety and handling

Consult the Safety Data Sheet before use.

## Note

The data contained herein, obtained in Loxeal laboratories, are given for information only; if specifics are required, please contact Loxeal Technical Department. Loxeal ensures abiding quality of supplied products according to its own specifics. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxeal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxeal products. Loxeal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.