

# ADHESIVE<sup>®</sup>

R&D

## Ethyl EL 45 Cyanoacrylate Adhesive

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### LIQUID PROPERTIES

|                               |                   |
|-------------------------------|-------------------|
| Ester Base                    | ethyl-2-          |
| cyanoacrylate                 |                   |
| Appearance                    | Clear, colourless |
| Flashpoint                    | >81°C             |
| Density                       | 1.05              |
| Shelf Life                    | 12 months,        |
| unopened                      |                   |
| Viscosity (Brookfield) @ 25°C | 45 cP             |
| (Spindle 1, 20rpm)            |                   |

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### POLYMER PROPERTIES

|                              |                    |
|------------------------------|--------------------|
| Appearance                   | Clear, colourless  |
| Softening Point              | c. 130°C           |
| Refractive Index, $n_D^{20}$ | 1.45               |
| Full Cure Time               | 24 hours           |
| Solubility                   | DMF, acetonitrile, |
| acetone                      |                    |

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### CURED PERFORMANCE

#### *Cure Speed*

|                               |               |
|-------------------------------|---------------|
| Balsa / Balsa                 | <10 seconds   |
| Oak / Oak                     | 120-180       |
| Nitrile / Nitrile             | <5 seconds    |
| Neoprene / Neoprene           | 5 seconds     |
| EPDM / EPDM                   | <7 seconds    |
| Steel / Steel                 | 10-20 seconds |
| PVC / PVC                     | 5-10 seconds  |
| Polycarbonate / Polycarbonate | 10-40 seconds |

#### *Shear Strength*

|                    |                       |
|--------------------|-----------------------|
| Grit Blasted Steel | >15 N/mm <sup>2</sup> |
| Etched Aluminium   | >11 N/mm <sup>2</sup> |
| Nitrile Rubber     | >10 N/mm <sup>2</sup> |
| Polycarbonate      | >12 N/mm <sup>2</sup> |

#### *Tensile Strength*

|                    |                        |
|--------------------|------------------------|
| Grit Blasted Steel | >18 N/mm <sup>2</sup>  |
| Nitrile Rubber     | >5 N/mm <sup>2</sup>   |
| Neoprene Rubber    | >5 N/mm <sup>2</sup>   |
| EPDM Rubber        | >2.5 N/mm <sup>2</sup> |

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### PRODUCT STORAGE

Adhesive R&D cyanoacrylates should ideally be stored in original sealed containers until used. Containers should be stored between 10°C and 22°C; avoid exposure to strong light and heat sources. Refrigeration prolongs shelf life.

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### DISCLAIMER

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