

## Adhesives types using H-EAGLE (120/50)50%

**H-EAGLE(120/50)50%** is a one-component adhesive for wood and wood substitutes where class D3 water resistance bonds according to EN 204 are required.

### D3-ADHESIVE

| Materials             | Weight (gm) |
|-----------------------|-------------|
| H-EAGLE(120/50)50%    | 969.8       |
| Diglycol acetate, BGA | 20.6        |
| Urea                  | 9.6         |
| Total                 | 1000        |

### D4-ADHESIVE

| Materials             | One- component D4 Weight | Two-components D4 Weight |
|-----------------------|--------------------------|--------------------------|
| H-EAGLE(120/50)50%    | 938.8                    | 958.4                    |
| Propylene carbonate   | 19.8                     | 0                        |
| Diglycol acetate, BGA | 20.6                     | 20.6                     |
| Urea                  | 9.6                      | 9.6                      |
| Glutaraldehyde        | 5.9                      | 5.9                      |
| Sodium metabisulfite  | 5.3                      | 0                        |
| Desmodur® DN          | 0                        | 5.5                      |
| Total                 | 1000                     | 1000                     |

## TECHNICAL DATA

### 1- Supply Specifications

| Test           | Unit              | Value | Deviation | Method  |
|----------------|-------------------|-------|-----------|---|
| Solids content | %                 | 50    | ±1.0      | DIN 53 189/ISO 1625                                 |
| Viscosity      | mPa.s             | 12000 | ±3000     | ISO 2555; 23 °C) Brookfield RVT, sp 6, rpm 20 min-1 |
| Density        | g/cm <sup>3</sup> | 1.08  | ±0.02     | ISO 8962  |
| pH             |                   | 3.2   | ±0.4      | DIN 53 785 / ISO 1148                               |

### 2- Typical Dispersion Values

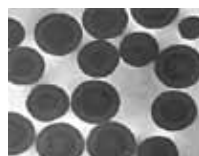
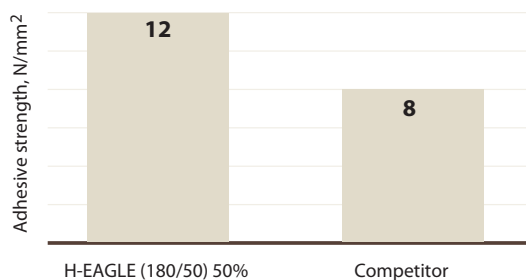
| Test                             | Unit | Value                           |
|----------------------------------|------|---------------------------------|
| Minimum film forming temperature | °C   | Approx. 4                       |
| Particle size                    | µm   | 0.3 – 3.0                       |
| Film appearance                  |      | Slightly opaque, tack-free film |

### 3- Physico-mechanical Values

| Test                                 | H-EAGLE(120/50) 50% | Competitor         |
|--------------------------------------|---------------------|--------------------|
| Water resistance(1)                  | ++                  | +                  |
| Thermal stability(2)                 | OK                  | Slightly yellowish |
| Adhesive strength, N/mm <sup>2</sup> | 12                  | 8                  |

(1) ++ very good & + good water resistance with accordance with EN 204.

(2) Thermal stability test was carried out at 65°C for 3 days.



Transmission electron microscope, TEM, shows the core-shell morphology of our polymer latex



Less water absorption with fine particle size polymer than the competitor.