



# PE-HD 4120x2010x25 mm luonnollinen

Artikelnr P2200304  
Material PE

## 1. Tekniskt datablad

| Egenskap                                      | Värde            | Enhet   | Standard     |
|-----------------------------------------------|------------------|---------|--------------|
| Tiheys                                        | 0.96             | g/cm³   | ISO 1183     |
| Venymisrajan jännitys                         | 20               | MPa     | ISO 527      |
| Joustavuusmoduli (vetolujuus)                 | 1200             | MPa     | ISO 527      |
| Murtolujuus                                   | 13               | MPa     | ISO 527      |
| Murtovenymä                                   | 200              | %       | ISO 527      |
| Sulamispiste                                  | 135              | °C      | ISO 3146     |
| Maksimaalinen käyttölämpötila (lyhytaikainen) | 95               | °C      | UL746B       |
| Maksimi käyttölämpötila                       | 76               | °C      |              |
| Alin lämpötila                                | -51              | °C      |              |
| Lämpökäyrä (HDT/A)                            | 45               | °C      | ISO 75-2     |
| Lämpökäyrä (HDT/B)                            | 69               | °C      | ISO 75       |
| Vicat-pehmenemislämpötila (VST/B/50)          | 79               | °C      | ISO 306      |
| Dielektrinen voimakkuus                       | 45               | kV/mm   | IEC 60243-1  |
| Tilavuusresistanssi                           | 10 <sup>12</sup> | Ω·cm    | EN 61340-5-1 |
| Dielektrinen vakio (1 MHz)                    | 2.4              | -       | IEC 60250    |
| Dielektrinen vakio (100 Hz)                   | 2.3              | -       | IEC 60250    |
| Dielektrinen hajoamiskerroin (1 MHz)          | 0.0              | -       | IEC 60250    |
| Dielektrinen hajoamiskerroin (100 Hz)         | 0.0              | -       | IEC 60250    |
| Taivutuslujuus                                | 20               | MPa     | ISO527-2     |
| Lämmönjohtavuus                               | 0.4              | W/(m·K) | DIN 52612    |
| Pintaresistanssi                              | 10 <sup>13</sup> | Ω       | EN 61340-5-1 |
| Vertailukulkemisindeksi (CTI)                 | 600              | V       | IEC 60112    |
| Imeytymisen maksimointi                       | 0.01             | %       | ISO 62       |
| Vesihaku kyllästymiseen                       | 0.01             | %       | ISO 62       |
| Särkyäkesto (Charpy)                          | 7.5              | kJ/m²   | ISO 179/1eA  |

| Egenskap                | Värde | Enhet               | Standard    |
|-------------------------|-------|---------------------|-------------|
| Iskunkestävyys (Charpy) | 15    | kJ/m²               | ISO 179/1eU |
| Lämpölaajenemiskerroin  | 2     | 10 <sup>-4</sup> /K | ISO 11359   |
| Kovuus Shore D          | 60    | ° Shore D           | shore D     |
| Kulmapaineen kovuus     | 50    | MPa                 | ISO 2039-1  |

## 2. Kemisk beständighet

● Beständig   ● Delvis beständig   ● Ej beständig

| Kemikalie                             | Konc.        | Resultat |
|---------------------------------------|--------------|----------|
| 1,4-Dioxane                           | 100%         | ●        |
| 2-Hydroxypropionic acid (lactic acid) | 90%          | ●        |
| Acetaldehyde                          | -            | ●        |
| Acetic acid                           | 100%         | ●        |
| Acetic acid                           | 100%         | ●        |
| Acetic acid, aqueous                  | 70%          | ●        |
| Acetic anhydride                      | -            | ●        |
| Acetone                               | -            | ●        |
| Acetone                               | 100%         | ●        |
| Acronal dispersions                   | -            | ●        |
| Acrylonitrile                         | -            | ●        |
| Allyl acetate                         | -            | ●        |
| Allyl alcohol                         | 96%          | ●        |
| Allyl chloride                        | -            | ●        |
| Aluminium chloride, aqueous           | any          | ●        |
| Aluminium chloride, solid             | -            | ●        |
| Aluminium fluoride                    | Conc.        | ●        |
| Aluminium hydroxide                   | -            | ●        |
| Aluminium metaphosphate               | -            | ●        |
| Aluminium sulphate, aqueous saturated | -            | ●        |
| Aluminium sulphate, solid             | -            | ●        |
| Ammonia                               | concentrated | ●        |
| Ammonia, gaseous                      | -            | ●        |
| Ammonia, liquid                       | -            | ●        |
| Ammonium chloride                     | -            | ●        |
| Amyl alcohol                          | -            | ●        |
| Aniline                               | any          | ●        |

| Kemikalie                                | Konc.             | Resultat |
|------------------------------------------|-------------------|----------|
|                                          |                   |          |
| Anisole                                  | -                 | ●        |
| Aqua regia                               | -                 | ●        |
| Beer                                     | -                 | ●        |
| Benzaldehyde, aqueous                    | any               | ●        |
| Benzene                                  | technically grade | ●        |
| Benzene                                  | -                 | ●        |
| Benzoic acid, aqueous                    | any               | ●        |
| Benzyl alcohol                           | -                 | ●        |
| Bitumen                                  | -                 | ●        |
| Bleaching solution                       | 12.5 cl           | ●        |
| Boric acid                               | 100%              | ●        |
| Brake fluid                              | -                 | ●        |
| Bromine, liquid                          | 100%              | ●        |
| Butanol, aqueous                         | any               | ●        |
| Butter                                   | -                 | ●        |
| Butyl acetate                            | -                 | ●        |
| Calcium chloride                         | -                 | ●        |
| Calcium hypochlorite, aqueous suspension | any               | ●        |
| Camphor                                  | -                 | ●        |
| Carbon disulphide                        | 100%              | ●        |
| Carbon disulphide                        | -                 | ●        |
| Carbon tetrachloride                     | -                 | ●        |
| Caustic soda (NaOH)                      | any               | ●        |
| Chlorine (gas)                           | 100%              | ●        |
| Chlorine, liquid                         | -                 | ●        |
| Chloroacetic acid, aqueous               | ≤85%              | ●        |
| Chlorobenzene                            | 100%              | ●        |
| Chlorobenzene                            | -                 | ●        |
| Chloroform                               | technically grade | ●        |
| Chloroform                               | -                 | ●        |
| Chromosulphuric acid                     | -                 | ●        |
| Cider                                    | -                 | ●        |
| Citric acid                              | 10%               | ●        |
| Citrus fruit juices                      | -                 | ●        |

| Kemikalie                         | Konc. | Resultat |
|-----------------------------------|-------|----------|
| Coconut oil                       | -     | ●        |
| Cod liver oil                     | -     | ●        |
| Cresol                            | 100%  | ●        |
| Cresol                            | -     | ●        |
| Cyclohexane                       | -     | ●        |
| Cyclohexanol                      | -     | ●        |
| Cyclohexanone                     | 100%  | ●        |
| Cyclohexanone                     | -     | ●        |
| Cyclohexene                       | 100%  | ●        |
| Detergents                        | usual | ●        |
| Detergents                        | -     | ●        |
| Dibutyl ether                     | -     | ●        |
| Dibutyl phthalate                 | -     | ●        |
| Dichloroacetic acid               | -     | ●        |
| Dichloroethane                    | -     | ●        |
| Diesel                            | -     | ●        |
| Diesel                            | -     | ●        |
| Diethylene oxide                  | -     | ●        |
| Diglycolic acid, aqueous          | 30%   | ●        |
| Dimethyl formamide (DMF)          | -     | ●        |
| Dimethylamine                     | -     | ●        |
| Dioxane                           | -     | ●        |
| Essential oils                    | -     | ●        |
| Ethyl acetate                     | -     | ●        |
| Ethyl acetate                     | 100%  | ●        |
| Ethyl alcohol (ethanol)           | 96%   | ●        |
| Ethylene alcohol                  | 96%   | ●        |
| Ethylene chloride                 | 100%  | ●        |
| Ethylene chloride                 | -     | ●        |
| Ethylene diamine                  | -     | ●        |
| Ethylene glycol                   | -     | ●        |
| Ferric chloride, aqueous          | any   | ●        |
| Ferric nitrate, aqueous saturated | -     | ●        |
| Ferric nitrate, aqueous saturated | -     | ●        |

| Kemikalie                                 | Konc.        | Resultat |
|-------------------------------------------|--------------|----------|
| Ferric sulphate, aqueous saturated        | -            | ●        |
| Ferric sulphate, aqueous saturated        | -            | ●        |
| Ferrous (II) chloride, aqueous saturated  | -            | ●        |
| Ferrous (II) sulfate, aqueous saturated   | -            | ●        |
| Ferrous (III) chloride, aqueous saturated | -            | ●        |
| Food oil                                  | -            | ●        |
| Formaldehyde (aqueous)                    | 40%          | ●        |
| Formaldehyde, aqueous                     | ≤40%         | ●        |
| Formic acid                               | 10%          | ●        |
| Formic acid, aqueous                      | 85%          | ●        |
| Frigen 12 (Freon 12)                      | 100%         | ●        |
| Frost protection agent                    | -            | ●        |
| Fruit juices                              | any          | ●        |
| Fuel (aromatic free)                      | -            | ●        |
| Fuel oil                                  | -            | ●        |
| Fuel oil                                  | -            | ●        |
| Furfural                                  | -            | ●        |
| Glycerine                                 | 100%         | ●        |
| Glycerine, aqueous                        | any          | ●        |
| Glycol                                    | 100%         | ●        |
| Glycol, aqueous                           | as supplied  | ●        |
| Glysantin                                 | -            | ●        |
| Heptane                                   | 100%         | ●        |
| Heptane                                   | -            | ●        |
| Hexane                                    | -            | ●        |
| Honey                                     | -            | ●        |
| Hydrobromic acid, aqueous                 | 50%          | ●        |
| Hydrochloric acid                         | 10%          | ●        |
| Hydrochloric acid (concentrated)          | concentrated | ●        |
| Hydrochloric acid, aqueous                | any          | ●        |
| Hydrofluoric acid                         | 40%          | ●        |
| Hydrogen peroxide                         | 10%          | ●        |
| Hydrogen sulfide (aqueous)                | -            | ●        |
| Ink                                       | -            | ●        |
| Iodine in potassium iodide solution       | 3% iodine    | ●        |

| Kemikalie                                | Konc.                      | Resultat |
|------------------------------------------|----------------------------|----------|
| Isooctane                                | -                          | ●        |
| Isopropanol                              | -                          | ●        |
| Isopropyl alcohol                        | 100%                       | ●        |
| Isopropyl ether                          | -                          | ●        |
| Jam                                      | -                          | ●        |
| Kerosene                                 | -                          | ●        |
| Linseed oil                              | technically grade          | ●        |
| Linseed oil                              | -                          | ●        |
| Lithium bromide                          | -                          | ●        |
| Maleic acid, aqueous                     | any                        | ●        |
| Menthol                                  | -                          | ●        |
| Mercurochrome                            | -                          | ●        |
| Mercury                                  | -                          | ●        |
| Methanol                                 | technically grade          | ●        |
| Methyl alcohol (methanol)                | 100%                       | ●        |
| Methyl chloride                          | gaseous, technically grade | ●        |
| Methyl ethyl ketone (MEK)                | 100%                       | ●        |
| Methyl ethyl ketone (MEK)                | technically grade          | ●        |
| Methylene chloride                       | 100%                       | ●        |
| Milk                                     | -                          | ●        |
| Milk                                     | -                          | ●        |
| Mineral oil (aromatic free)              | -                          | ●        |
| Molasses                                 | -                          | ●        |
| Motor oil (heavy duty) without additives | -                          | ●        |
| Naphtha                                  | -                          | ●        |
| Naphthalene                              | -                          | ●        |
| Nitric acid                              | 10%                        | ●        |
| Nitric acid (50%)                        | 50%                        | ●        |
| Nitric acid, aqueous                     | 50%                        | ●        |
| Nitric acid, aqueous                     | 25%                        | ●        |
| Nitrobenzene                             | -                          | ●        |
| Nitrobenzene                             | -                          | ●        |
| Oils, vegetable and animal               | -                          | ●        |
| Oleic acid                               | -                          | ●        |

| Kemikalie                     | Konc.             | Resultat    |
|-------------------------------|-------------------|-------------|
| Oleum (fuming sulphuric acid) | any               | <div></div> |
| Oxalic acid                   | -                 | <div></div> |
| Oxalic acid, aqueous          | any               | <div></div> |
| Oxygen                        | -                 | <div></div> |
| Ozone                         | 50 ppm            | <div></div> |
| Ozone (gas)                   | ≤0.5 ppm          | <div></div> |
| Paraffin oil                  | 100%              | <div></div> |
| Perchloric acid, aqueous      | 20%               | <div></div> |
| Perchloric acid, aqueous      | 50%               | <div></div> |
| Perchloric acid, aqueous      | 70%               | <div></div> |
| Perchloroethylene             | -                 | <div></div> |
| Petroleum                     | -                 | <div></div> |
| Petroleum ether               | -                 | <div></div> |
| Petroleum ether               | 100%              | <div></div> |
| Phenol                        | -                 | <div></div> |
| Phenol (aqueous)              | ≈9%               | <div></div> |
| Phosphoric acid               | 50%               | <div></div> |
| Phosphoric acid, aqueous      | 50%               | <div></div> |
| Phosphoric acid, aqueous      | 80% L 95%         | <div></div> |
| Phosphorus trichloride        | -                 | <div></div> |
| Photographic developer        | -                 | <div></div> |
| Photographic emulsion         | as supplied       | <div></div> |
| Photographic fixing bath      | as supplied       | <div></div> |
| Phthalic acid, aqueous        | 50%               | <div></div> |
| Polyester resins              | -                 | <div></div> |
| Potassium hydroxide solution  | 50%               | <div></div> |
| Premium fuel                  | -                 | <div></div> |
| Propionic acid, aqueous       | any               | <div></div> |
| Propyl alcohol                | -                 | <div></div> |
| Pyridine                      | -                 | <div></div> |
| Pyridine                      | -                 | <div></div> |
| Sea water                     | -                 | <div></div> |
| Silicone oil                  | technically grade | <div></div> |
| Silicone oil                  | -                 | <div></div> |
| Sodium borate (borax)         | -                 | <div></div> |

| Kemikalie                                | Konc.             | Resultat |
|------------------------------------------|-------------------|----------|
| Sodium bromide                           | -                 | ●        |
| Sodium carbonate (aqueous)               | -                 | ●        |
| Sodium chloride (aqueous)                | -                 | ●        |
| Sodium hydrogen sulfite                  | -                 | ●        |
| Sodium hydroxide solution (60%)          | 60%               | ●        |
| Sodium hydroxide solution (caustic soda) | 15%               | ●        |
| Sodium hydroxide, aqueous                | any               | ●        |
| Sodium hydroxide, solid                  | -                 | ●        |
| Sodium nitrate (aqueous)                 | -                 | ●        |
| Sodium thiosulfate                       | -                 | ●        |
| Stearic acid                             | -                 | ●        |
| Sugar syrup                              | -                 | ●        |
| Sulphuric acid                           | 96%               | ●        |
| Sulphuric acid, aqueous                  | ≤50%              | ●        |
| Sulphuric acid, aqueous                  | 98%               | ●        |
| Sulphuric acid, aqueous                  | 80%               | ●        |
| Sulphuric acid, aqueous                  | 70%               | ●        |
| Tallow                                   | technically grade | ●        |
| Tannic acid (tannin), aqueous            | 10%               | ●        |
| Tetrahydrofuran (THF)                    | technically grade | ●        |
| Tetrahydrofuran (THF)                    | 100%              | ●        |
| Thionyl chloride                         | -                 | ●        |
| Thiophene                                | -                 | ●        |
| Tin (II) chloride, aqueous               | any               | ●        |
| Tin (IV) chloride, aqueous               | saturated         | ●        |
| Toluene                                  | 100%              | ●        |
| Toluene                                  | technically grade | ●        |
| Transformer oil                          | -                 | ●        |
| Transformer oil (insulating oil)         | technically grade | ●        |
| Trichloroacetic acid                     | technically grade | ●        |
| Trichloroethylene                        | technically grade | ●        |
| Trichloroethylene                        | 100%              | ●        |
| Triethanolamine                          | -                 | ●        |
| Turpentine oil                           | technically grade | ●        |



| Kemikalie          | Konc.             | Resultat |
|--------------------|-------------------|----------|
| Urea, vattenl.     | ≤33%              | ●        |
| Vaseline           | technically grade | ●        |
| Vinegar (standard) | 5-10%             | ●        |
| Water              | -                 | ●        |
| Water, distilled   | -                 | ●        |
| Wine               | -                 | ●        |
| Xylene             | -                 | ●        |
| Xylene             | -                 | ●        |
| Zinc sludge        | -                 | ●        |