## Section 1. PRODUCT DESCRIPTION

## REINFORCED ANGLE BRACKET - KPW

Three-dimensional plate fasteners for nailing are used for various timber-to-timber connections. For connections, the following fasteners can be used: nails, screws, ring shank nails and screws. Angle brackets have their own nailing diagrams. If no information is given it is assumed that they should be fixed using all available holes. Fasteners are coated with blue zinc-plated coating ensuring corrosion protection and come in fire resistance class A1.

## Features and advantages of fasteners:

- easy installation
- savings in construction materials
- stability and rigidity of the structure
- high quality, durability and aesthetics
- corrosion protection
- fire resistance class - A1

Fasteners hold National Technical Assessment: ITB-KOT-2019/0439 Rev. 1


## Section 2. METHOD OF INSTALLATION

1. Original fasteners delivered by the manufacturer can be used only
2. The fastened wooden elements should be defect-free (no knots, cracks, colourations, rots, structure and shape defects, mechanical damages) as any defects reduce their strength
3. For connection, suitable pin type fasteners should be selected with an adequate length depending on thickness of the elements to be fastened
4. Pin type fasteners should conform to PN-EN 14592+A1:2012
5. Screws and nails should be used directly in wooden substrate without prior drilling
6. Fasteners should be used in accordance with technical design prepared, taking into account Polish standards and building regulations


## Section 3. TECHNICAL DATA

| SELECTION TABLE |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Product marking | Dimensions [mm] |  |  |  | No. of holes |  |  |  |  |  | Design resistance | Number of pieces |
|  | A | B | C | D | ø4,5 | ø5 | $\varnothing 7$ | ø11 | ø13 | ø14 | [kN] | pcs |
| KPW-01(X50) | 73 | 73 | 55 | 2,5 | 20 | - | - | 2 | - | - | 5,79 | 50 |
| KPW-02(X50) | 93 | 53 | 55 | 2,5 | 18 | - | - | 2 | - | - | 5,79 | 50 |
| KPW-03(X50) | 92 | 92 | 65 | 2,5 | 16 | - | 12 | 2 | - | - | 5,79 | 50 |
| KPW-04(X25) | 105 | 105 | 90 | 2,5 | - | 24 | 8 | 4 | - | 2 | 5,79 | 25 |
| KPW-05(X50) | 90 | 60 | 60 | 2,5 | - | 9 | - | 1 | - | - | 5,79 | 50 |
| KPW-06(X50) | 90 | 60 | 60 | 2,5 | - | 9 | - | - | - | - | 5,79 | 50 |
| KPW-07(X50) | 93 | 53 | 48 | 2,5 | - | 11 | - | - | 3 | - | 5,79 | 50 |
| KPW-08(X50) | 88 | 50 | 76 | 2,5 | 16 | - | - | - | 5 | - | 5,79 | 50 |
| KPW-09(X25) | 93 | 53 | 116 | 2,5 | 25 | - | - | - | 6 | - | 5,79 | 25 |
| KPW-10(X50) | 63 | 63 | 90 | 2,5 | 18 | - | - | - | - | - | 5,79 | 50 |



| NAILING DIAGRAM |
| :---: |
| KPW |
|  |

## Section 4. REMARKS

1. All previous versions of this Product Data Sheet shall cease to be valid
2. Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. KLIMAS Sp. z o.o. is not responsible for correctness and quality of the fixing if recommendations regarding method of use and installation are not followed.
