



# BAYCOPLATE

## Carbon fiber plates for structural strengthening

### Description:

BAYCOPLATE products are carbon fiber plates which are used at the structural strengthening applications.

### Areas of Application:

BAYCOPLATE products can be used at every structural strengthening application;

- To increase the load bearing capacity of slab beams,
- To increase the load bearing capacity of bridges,
- To change the service goal of the structure and to adopt the structure for its new service,
- At repair applications where the structure is damaged by an external effect,
- At situations which reinforcement corrodes,
- To reduce deflections at the structure,
- To decrease tensile loads on the reinforcement,
- To lengthen the service life of the structure,
- To change the design of the structure after it has been constructed.

### Properties/Advantages:

The application is done by simply pasting plates onto the application area with special epoxy based adhesive, BAYCODUR-1300. Also, they can be used to form systems with BAYCOFABRIC products. BAYCOPLATE products can be grouped in two categories, high elasticity-modulus plates and high-strength plates. (BAYCOPLATE-HS ve BAYCOPLATE-M series, respectively.)

The product is

- Non-corrosive,
- Easy to apply, very light,
- Extra ordinary strength and resistance,
- High fatigue strength,
- Easy application at the plate joints,
- No storage limitations.

### Technical Data:

Please refer to the technical data table.

### Packaging:

All types are delivered in boxes of 100 m rolls.

### Storage:

The storage time is unlimited under suitable conditions.

### Surface Preparation:

- All loose and adhesion inhibitive particles should be removed from the surface.
- Corroded reinforcement should be fixed and protected against corrosion with BAYCOCRET-KS/HB.
- Wooden surfaces should be grinded.
- Condensation should be avoided on the metal surfaces.

### Product Preparation:

The product is ready to use.

### Method of Application:

Special epoxy adhesive, BAYCODUR-1300, shall be applied onto the surface directly which is to be strengthened. After that, epoxy adhesive should be applied onto BAYCOPLATE, too. Then, the product should be fixed on the surface. During application, weather conditions, surface conditions, etc. should be considered by means of their effect on epoxy adhesive. (Refer to BAYCODUR-1300 TDS for details.)

### Average Epoxy Consumption;

Plate Width	BAYCODUR-1300
20/50 (mm)	0,35 (kg/m <sup>2</sup> )
60 (mm)	0,40 (kg/m <sup>2</sup> )
80 (mm)	0,55 (kg/m <sup>2</sup> )
90 (mm)	0,70 (kg/m <sup>2</sup> )
100 (mm)	0,80 (kg/m <sup>2</sup> )
120 (mm)	1,00 (kg/m <sup>2</sup> )
150 (mm)	1,20 (kg/m <sup>2</sup> )

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## Cleaning:

Clean the tools with appropriate cleaner right after the application.

# BAYCOPLATE

- TECHNICAL DATA for BAYCOPLATE-HM TYPES;

TYPE	WIDTH (mm)	THICKNESS (mm)	DEN. (g/cm <sup>3</sup> )	COLOR	FIBER AM. BY VOL. (%)	TENSILE STREN. (MPa)	ELAS. MOD. (KPa)	AVRG. TENSILE STREN. AT BREAK (MPa)	ELON. AT BREAK (%)
BAYCOPLATE-HM514	50	1,4	1,6	BLACK	> 68	>2,400	> 210	2900	> 1,2
BAYCOPLATE-HM614	60	1,4	1,6	BLACK	> 68	>2,400	> 210	2900	> 1,2
BAYCOPLATE-HM814	80	1,4	1,6	BLACK	> 68	>2,400	> 210	2900	> 1,2
BAYCOPLATE-HM914	90	1,4	1,6	BLACK	> 68	>2,400	> 210	2900	> 1,2
BAYCOPLATE-HM1014	100	1,4	1,6	BLACK	> 68	>2,400	> 210	2900	> 1,2
BAYCOPLATE-HM1214	120	1,4	1,6	BLACK	> 68	>2,400	> 210	2900	> 1,2

- TECHNICAL DATA for BAYCOPLATE-HS TYPES;

TYPE	WIDTH (mm)	THICKNESS (mm)	DEN. (g/cm <sup>3</sup> )	COLOR	FIBER AM. BY VOL.. (%)	TENSILE STREN. (MPa)	ELAS. MOD. (KPa)	AVRG. TENSILE STREN. AT BREAK (MPa)	ELON. AT BREAK (%)
BAYCOPLATE-HS212 BAYCOPLATE-HS214	20	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7
BAYCOPLATE-HS512 BAYCOPLATE-HS514	50	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7
BAYCOPLATE-HS612 BAYCOPLATE-HS614	60	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7
BAYCOPLATE-HS812 BAYCOPLATE-HS814	80	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7
BAYCOPLATE-HS912 BAYCOPLATE-HS914	90	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7
BAYCOPLATE-HS1012 BAYCOPLATE-HS1014	100	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7

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BAYCOPLATE- HS1212 BAYCOPLATE- HS1214	120	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7
BAYCOPLATE- HS1512 BAYCOPLATE- HS1514	150	1,2/1,4	1,5	BLACK	> 68	>3,000	> 165	3,050	> 1,7