

### Wagon Hbis-z



Cargo wagon Hbis-z is produced by reconstruction of underframe and equipment below underframe of Gbs-z wagon. Two end walls, intermediate post and narrow roof supporting structure made of steel sections and plates are mounted on reconstructed underframe. All built-in materials are atested.

Wagon is equipped with two sliding doors on each side. Doors are made of aluminum sections and plates. Two-part sliding doors can be locked and unlocked by hand lever at the end walls. Before turning of lever, safety must be lifted and lever must be released. Slide doors can be freely moved along wagon guidances after unlocking. Wagon is equipped with mechanism which disables turning of lever when sliding doors are not in closing position. Sliding doors and lever handling can be controlled by one person. This is obtained by construction and choice of materials.

Wagon Hbis-z is suitable for transporting of cases, pallets and single packages. The narrow roof structure and large loading opening (6280 x 2760 mm) enables easy and simple loading and unloading of wagon.

Wagon complies to UIC, RIV and Croatian Railways standards and all new-built parts are maximally unified with parts built in newly produced Hbis-z wagons.

Hbis-z wagon is identical to Hbills-z wagon (produced by reconstruction of Gbs-z wagon), except the fact that Hbis-z wagon doesn't have bulkheads.

### Technical data

Track gauge:.....	1435 mm
Number of axles:.....	2
Length over buffers:.....	14020 mm
Tread circle diameter:.....	920 mm
Wagon height:.....	4270 mm
Max. width:.....	3060 mm
Loading length:.....	12780 mm
Loading width:.....	2900 mm
Loading capacity:.....	93 m <sup>3</sup>
Loading area:.....	37 m <sup>2</sup>
Loading opening:.....	6280 x 2760 mm
Height above top of rail:.....	1230 mm
Tare weight:.....	15 t ± 8%
Max. payload:.....	25 t
Curvature radius:.....	75 m
Max. speed: unloaded-loaded:.....	120/100 kmph
Wheelbase:.....	8000 mm

### Wheel set

Wagon is equipped with wheel set according to UIC 510-1 and UIC 813-1 standards, monoblock wheels with tread circle diameter of 920 mm, according to UIC 812-3 standard. Short sleeve diameter is 120 mm, according to UIC 811 standard. Bearing housings are equipped with roll bearings WJ 120 x 240 and WJP 120 x 240, according to UIC 514-1 standard.

Wagon suspension is achieved by leaf springs, leaf section is 16 x 120 mm for 20-tons load, which are suspended over double rings, according to UIC 517 standard.

### Underframe

Hbis-z wagon underframe is geometrically unchanged, so its static and dynamic characteristics are identical to Gbs-z wagon. Underframe sides are adjusted for construction, opening and closing of sliding doors.

Automatic clutch can be built in according to UIC 530-5 standard.

### **Coupling gear**

Coupling gear is frontal-type, according to UIC 520 and UIC 521 standard. Spring is elastomer-type St 9-2, spring stroke is 60 mm.

### **Buffers**

Buffers are in class A with elastomer spring, according to UIC 526-1 standard. Buffer plate diameter is 450 mm. Buffer stroke is 105 mm. Buffer height is 1060 ± 5 mm on empty wagon, but no less than 970 mm from top on rail, with maximum load.

### **Braking equipment**

Wagon is equipped with compressed air automatic brake OERLIKON type according to UIC 540 to 544 standards. There is distributor ESt3f type installed, brake cylinder 12" and brake levers regulator SABDRV 2A 450. Each main installation pipeline (5/4") on both sides of wagon is equipped with handle 'empty - loaded'. Wagon has parking brake installed too.

### **Wagon floor**

Wagon floor is made of deal boards, according to UIC 844-1 standard and it is protected with 2 mm steel plate above wheels.

### **Stairs, holders, signal supports, leaflet frames and dragging hooks**

Stairs and holders are made according to UIC 535-1, signal supports according to UIC 532, leaflet frames according to UIC 575, dragging hooks according to UIC 536 standard.

### **Grounding**

Grounding is developed according to UIC 355 standard.

### **Painting and inscriptions**

Wagon is painted and marked with RAL 8012 paint, according to UIC, RIV and Croatian Railways standards.