Zinc alloy wire ZnAl (ZnAl2, ZnAl4, ZnAl15, ZnAl22)



Zinc alloy wire ZnAl (ZnAl2, ZnAl4, ZnAl15, ZnAl22) is used to apply zinc-aluminium coatings by metal spraying processes on steel products in order to protect them against corrosion. The wire also finds application in the electronics industry. SHG zinc of the highest purity (99,995%) is used in the production process of the wire.



CHEMICAL COMPOSITION of zinc alloy wire ZnAl in %:

	Alloy component		Admixtures together – max. 0,17						
Wire grade	Zn	Al	Pb	Cd	Pb+Cd	Sn	Fe	Cu	Si
			max	max	max	max	max	max	max
ZnAl2	97,5 ÷ 98,5	1,5 ÷ 2,5	0,007	0,004	0,011	0,001	0,02	0,01	0,12
ZnAl4	95,5 ÷ 96,5	3,5 ÷ 4,5							
ZnAl15∗	84,0 ÷ 86,0	14 ÷ 16							
ZnAl22	77,0 ÷ 79,0	21 ÷ 23							

^{*}according to PN-EN ISO 14919:2015-03

Zinc spray is applied by use of electric arch or combustion guns. Depending on the type of the guns it is recommended to use zinc alloy wire ZnAI with appropriate physical parameters.

Symbol	Diameter
Zinc alloy wire <mark>ZnAl</mark> (ZnAl2, ZnAl4, ZnAl15, ZnAl22)	1,20mm – 4,76mm

The application of zinc-aluminium coatings by spraying is a method of anticorrosive protection.

It has the following advantages over hot dip galvanizing or electroplating:

- it is possible to metalize structures on site,
- no limitations as regards the dimension of components to be coated,
- it is possible to repair the coating on construction site (welding areas, mechanical damage, etc.),
- high resistance against mechanical damage,
- sprayed zinc aluminium coating has higher durability and its thickness can be easily adjusted to suit the operational requirements,
- zinc spraying eliminates the risk of thermal deformation of components to be protected.



Packaging:

Endless:

Cardboard barrels with a weight of 100, 150, 200 kg or steel drums 200 - 400 kg. The wire is placed in a film bag and the barrels are capped. The barrels are packed in pairs or as a group of four on a wooden pallet and protected with polyethylene bands. In case of regular customers, barrels can be reused as per customer's request. On request steel barrels are also available.

Spools:

Wire coiled on plastic or metal spools weighting 15 kg each are put into cardboard boxes. The boxes are stacked on a wooden pallet and protected with a polyethylene band.

Coils:

1) Coils of 20 kg, protected against uncoiling with polyethylene bands are put into cardboard boxes staceked on wooden pallet and protected with polyethylene bands.

2) Coils of 20 kg, protected against uncoiling with polyethylene bands are put into cardboard barrels with a weight of 400 kg are packed in pairs on the pallet and protected with polyethylene bands.



Properties - zinc alloy wire ZnAl

Property	Wire grade	Value [N/mm ²]		
	ZnAl2	100 ÷ 160*	>140 for wire 1,2 i 1,6mm	
Tensile strength R_m	ZnAl4			
r ensile strengtr n _m	ZnAI15			
	ZnAl22	130 ÷ 190*	>170 for wire 1,2 i 1,6mm	

*depends on the diameter



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