



55% ALUMINUM-ZINC ALLOY COATED STEEL Grade Data Sheet

55% Aluminum-Zinc Alloy Coated Steel - hot-dip aluminum & zinc alloy coated structural steel with guaranteed minimum yield strength. Meets ASTM A792-09 specifications/requirements.

GRADE 33

Mechanical Properties			Chemical Composition	
Steel base	Guaranteed	Typical Range	Guaranteed Maximum	Percent
Longitudinal tensile			Carbon (C)	0.20
Yield strength, minimum ksi	33	33-53	Phosphorus (P)	0.04
Tensile strength, minimum ksi	45	45-64	Manganese (Mn)	1.35
Elongation in 2 inch, minimum %	20	20-35	Sulfur (S)	0.04
Hardness, HRB	-	50-70	See ASTM A 792 for more details	
Supply Condition	Standard	Optional	Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)	
Coating class	AZ50, AZ55	AZ35	Bending	5
Tension leveling	Leveled		Drawing	NR
Surface conditioning	Not Skin-passed	Skin passed, (paint line feed)	Pressing	NR
			Pittsburgh Lock Seam	4
			Roll-forming	5
Chemical treatment	Passivated		Welding *	5
			Painting **	5

* Design must allow for some strength reduction near welds. ** Maximum thickness suitable for organic coil coating is 0.0466".

GRADE 37

Mechanical Properties			Chemical Composition	
Steel base	Guaranteed	Typical Range	Guaranteed Maximum	Percent
Longitudinal tensile			Carbon (C)	0.20
Yield strength, minimum ksi	37	37-59	Phosphorus (P)	0.10
Tensile strength, minimum ksi	52	52-67	Manganese (Mn)	1.35
Elongation in 2 inch, minimum %	18	18-35	Sulfur (S)	0.04
Hardness, HRB	-	50-70	See ASTM A 792 for more details	
Supply Condition	Standard	Optional	Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)	
Coating class	AZ50, AZ55	AZ35	Bending	5
Tension leveling	Leveled		Drawing	NR
Surface conditioning	Not Skin-passed	Skin passed, (paint line feed)	Pressing	NR
			Pittsburgh Lock Seam	3
			Roll-forming	5
Chemical treatment	Passivated		Welding *	5
			Painting **	5

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GRADE 40

Mechanical Properties			Chemical Composition	
Steel base	Guaranteed	Typical Range	Guaranteed Maximum	Percent
Longitudinal tensile			Carbon (C)	0.25
Yield strength, minimum ksi	40	40-55	Phosphorus (P)	0.10
Tensile strength, minimum ksi	55	55-68	Manganese (Mn)	1.35
Elongation in 2 inch, minimum %	16	16-35	Sulfur (S)	0.04
Hardness, HRB	-	50-70	See ASTM A 792 for more details	
Supply Condition	Standard	Optional	Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)	
Coating class	AZ50, AZ55	AZ35	Bending	5
Tension leveling	Leveled		Drawing	NR
Surface conditioning	Not Skin-passed	Skin passed, (paint line feed)	Pressing	NR
			Pittsburgh Lock Seam	3
			Roll-forming	5
Chemical treatment	Passivated		Welding *	5
			Painting **	5

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GRADE 50 (Class 1)

Mechanical Properties			Chemical Composition	
Steel base	Guaranteed	Typical Range	Guaranteed Maximum	Percent
Longitudinal tensile			Carbon (C)	0.25
Yield strength, minimum ksi	50	50-65	Phosphorus (P)	0.20
Tensile strength, minimum ksi	65	65-70	Manganese (Mn)	1.35
Elongation in 2 inch, minimum %	12	12-34	Sulfur (S)	0.04
Hardness, HRB	-	60-74	See ASTM A 792 for more details	
Supply Condition	Standard	Optional	Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)	
Coating class	AZ50, AZ55	AZ35	Bending	4
Tension leveling	Leveled		Drawing	NR
Surface conditioning	Not Skin-passed	Skin passed, (paint line feed)	Pressing	NR
			Pittsburgh Lock Seam	3
			Roll-forming	5
Chemical treatment	Passivated		Welding *	5
			Painting **	5

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GRADE 80 (Class 1)

Mechanical Properties			Chemical Composition	
Steel base	Guaranteed	Typical Range	Guaranteed Maximum	Percent
Longitudinal tensile			Carbon (C)	0.20
Yield strength, minimum ksi	80	80-120	Phosphorus (P)	0.04
Tensile strength, minimum ksi	82	82-120	Manganese (Mn)	1.35
Elongation in 2 inch, minimum %	-	0-10	Sulfur (S)	0.04
Hardness, HRB	-	84-99	See ASTM A 792 for more details	
Supply Condition	Standard	Optional	Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)	
Coating class	AZ50, AZ55	AZ35	Bending	2
Tension leveling	Leveled		Drawing	NR
Surface conditioning	Not Skin-passed	Skin passed, (paint line feed)	Pressing	NR
			Pittsburgh Lock Seam	NR
			Roll-forming	4
Chemical treatment	Passivated		Welding *	5
			Painting **	5

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GRADE CSA

Mechanical Properties			Chemical Composition	
Steel base	Guaranteed	Typical Range	Guaranteed Maximum	Percent
Longitudinal tensile			Carbon (C)	0.10
Yield strength, minimum ksi	-	30-59	Phosphorus (P)	0.03
Tensile strength, minimum ksi	-	50-67	Manganese (Mn)	0.60
Elongation in 2 inch, minimum %	-	24-36	Sulfur (S)	0.035
Hardness, HRB	-	50-70	See ASTM A 792 for more details	
Supply Condition	Standard	Optional	Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)	
Coating class	AZ50, AZ55	AZ35	Bending	5
Tension leveling	Leveled		Drawing	2
Surface conditioning	Not Skin-passed	Skin passed, (paint line feed)	Pressing	2
			Pittsburgh Lock Seam	5
			Roll-forming	5
Chemical treatment	Passivated		Welding *	5
			Painting **	5

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