CASCADIA METALS

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,	Pressing	NR
		(paint line feed)	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,	Pressing	NR
		(paint line feed)	Pittsburgh Lock Seam	3
			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".*

CASCADIA METALS

55% ALUMINUM-ZINC ALLOY COATED STEEL
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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,	Pressing	NR
		(paint line feed)	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,	Pressing	NR
		(paint line feed)	Pittsburgh Lock Seam	3
			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".*

CASCADIA METALS

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 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,	Pressing	NR
		(paint line feed)	Pittsburgh Lock Seam	NR
			Roll-forming	4
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 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,	Pressing	2
		(paint line feed)	Pittsburgh Lock Seam	5
			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".*