

Aluminized Coated Steel is mild steel coated with fine and uniform aluminum and silicon coating, which gives additional heat resistance( upto 450 Degree) to the Steel along with high resistance and natural corrosion and with a admirable finishing.

### **Benefits of Aluminized Coated Steel.**

- Heat Resistant upto - 450 Degree.-:Arrest's heat i.e Stops temperature fall in reactors and industrial ovens and helps quick Heating it Also adds external Safety
- No- Decolorization -: Stainless Steel changes color after frequent heating, Aluminized coating shall stay the same.
- Low cost Compared to Stainless Steel
- Excellent Finishing with uniform Surface.

### **Specifications**

Material is as per ASTM A- 463 - coating - Micron- 40micron/ 60 micron/ 80 micron/ 120 micron coatings are available.

Thickness range- 0.3mm – 2.3mm.

Quality- Commercial/ Drawing/ Deep Drawing quality possible.

### **Applications**

- Automobile Silencers & Exhaust Systems,
- Kerosene/ Charcoal based Stoves.
- Industrial Heaters & Industrial Ovens.
- Bakery Mould Products.
- Industrial Blowers.
- All heat based Moulding products.
- Household Thermal Equipments
- Hot Air Ducting.
- Insulation in Industrial and commercial building and Hospitals.

### **Technical Specifications.**

#### **HEAT RESISTANCE**

The heat resistance of ALCOSTA is excellent compared to that of zinc-coated steel sheet, galvanized steel sheet, and cold-rolled steel sheet. Absolutely no changes in appearance and discoloration are observed even under extended exposure to the temperature of 450°C. At temperatures higher than 450°C the coating material transforms to aluminum-iron alloy

layer so that heat resistance and corrosion resistance are preserved even if discoloration occurs. The coating maintains its sacrificial properties up to the temperature of approximately 600°C.

### **Heat Reflectivity.**

Aluminized Coated Steel provided with excellent thermal reflectivity due to the fineness of its surface. The thermal reflectivity of Aluminized Coated Steel at 450°C reaches up to approximately 80%, and this is applied to thermal reflectors for toasters, gas ranges, oil stove, and so forth.

HEAT REFLECTIVITY in %	Aluminized coated steel	Electro- Galvanized Sheet	Galvanized Sheets
			Spangle
100°CX 24hrs.	90	90	90
400°CX 24hrs.	80	30	20

### **SALT SPRAY TEST RESULTS FOR EACH PRODUCT**

**Aluminized Coated Steel** has generally been understood being poor in form ability due to the presence of brittle alloy layer between the steel and aluminum layers. But, when form ability of Aluminized Coated Steel is compared with that of cold-rolled steel sheets and galvanized steel sheets, DQ and DDQ grades of ALCOSTA shows better form ability than those.

MATERIAL	CLASS	CODE	TENSILE TEST		
			YP(kgf/mm2)	TS(kgf/mm2)	E (%)
HOT-DIPPED STEEL SHEET	Commercial	SA1C	23	36	35
	Drawing	SA1D	21	32	38
	Deep-Drawing	SA1E	20	31	40
COLD-ROLLED STEEL SHEET	Commercial	SPCC	24	34	38

Steel Grade Dx 51 D + AS = JIS G 3314- SA1C (Commercial quality)

Steel Grade Dx 53 D + As = JIS G 3314- SA1D (Drawing quality)

Steel Grade Dx 54 D + As = JIS G 3314- SA1E (Deep Drawing quality)

Steel Grade Dx 56 D + As = JIS G 3314- EDDQ (Extra Deep Drawing quality)

### **PAINTABILITY**

Paint ability of aluminum coating is better than of galvanized steel sheet. In order to improve paint adhesion quality, chemical treatment is necessary.

Aluminized Steel is known in various names around the world such as- Alu Si, Aluminized Steel, Aluminum Plated Steel, Aluminum Coated Steel. ACMS ( Aluminized coated Mild Steel), ALUSIL .

Thickness range( Millimeter) : 0.3,0.4,0.5,0.6,0.7,0.8,0.9,1,1.2,1.5,1.6,1.8,2,2.3,2.5,3

Thickness range( Inches ) : 0.0118 , 0.0157, 0.0197, 0.0236, 0.0276, 0.0315, 0.0354, 0.0394, 0.0472, 0.0591, 0.0630, 0.0709, 0.0787, 0.0906, 0.0984, 0.1181 .