

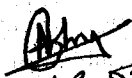
SCOPE OF SUPPLY FOR EXTRUSION OF KERB PROFILE TO DRG. VLW NO. 31416.


- 1.0 Scope: - This specification covers the specific requirements for Aluminium Alloy Al Zn_{4,5} Mg₁ F35 DIN 1748/1 Supersedes by DIN EN 755-1 & DIN EN 755-2, DIN 1725/1 Supersedes by EN 573-3 for extrusion of Kerb Profile to Drg. VLW No.31416.
- 2.0 Size, Tolerance and permitted deviations on torsion, straightness (upright, flat position and plane):- As per Drg. VLW No. 31416.
- 3.0 Dimensions without tolerance: - In accordance as per Drg. VLW No. 31416.
- 4.0 Supply Length: - As per Drg. VLW No. 31416 = 4850 + 20 mm
- 5.0 Input Material Specifications: - Aluminium Alloy Al Zn 4, 5 Mg 1F 35 DIN 1725/1 Supersedes by EN 573-3 Direct Chill Cast Billets.
- 6.0 Chemical Composition: - Chemistry shall confirm to the following percentages by weight (indicated in Table -- 1), determined in accordance with ASTM E 1251-11 method (for Optical Emission Spectrometer Analysis).

Table-1

Element	% by Weight	
	Minimum	Maximum
Silicon (Si)	0.00	0.35
Iron (Fe)	0.00	0.40
Copper (Cu)	0.00	0.20
Manganese (Mn)	0.05	0.50
Magnesium (Mg)	1.00	1.40
Chromium (Cr)	0.10	0.35
Zinc (Zn)	4.00	5.00
Titanium (Ti)	0.00	0.05
Zirconium (Zr)	0.08	0.20
Aluminium (Al)	Remainder	

- 7.0 Mechanical Properties: - Profile shall confirm the following mechanical properties as per DIN EN-755-2.
- 0.2% Proof Stress: 290 MPa (min)
 - UTS: 350 MPa(min)
 - Elongation : 10 % (min)
 - Hardness: - 90 – 110 BHN.
- 8.0 Charge ratio of virgin (Pure Aluminium) to scrap is made as 'preferably 70:30'.
- 9.0 Sampling plan for Chemical Analysis: - One sample to be taken from start & finish end of one log from each cast.
- 10.0 Hydrogen content: - 0.150 ml/100 gm.
- 11.0 Microstructure: - Shall be free from columnar grain, voids, seams, laps, porosity, crack and segregation.
- 12.0 Homogenization: - Cast logs shall be homogenized.
- 13.0 Extrusion Ratio shall be 1:6 minimum.
- 14.0 Macro Test of Extrusions: - Macro samples from back end of each extrusion shall be tested and it should be free from extrusion defects. Test method as per ASTM-E-340-2000.
- 15.0 Identification: - Proper identification in relation with Cast No. & Extrusion No. shall be stamped on each extrusion along with direction of extrusion, Supplier's Name, Alloy and size of product.
- 16.0 Material Test Certificates are required from reputed Lab/NABL Accredited Lab/Internationally reputed Lab for Chemical composition, Microstructure of logs, Ultrasonic testing results, Hydrogen content test, Mechanical properties and Macro test results of each extrusion results. Manufacturer should forward dimensional inspection report along with material test certificates.


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