

VBC Alloy 0035 Alcubraze (4145)

Designation and Description	GTAW and GMAW Solid Welding Wire Aluminium Base	Issued: Mar/2014	MSRR: 9500/35	AMS: 4184G
		Revision: 01		
Cross Reference/ Conformance Specification	MSRR 9500/35 AMS 4184G OMat 337 BS 1845 4145A Al 716	BS EN ISO 18273:2004 AlSi10Cu4 Al4145 AWS A5.8 BAISI-3 AWS A5.10/A5.10M:1999 ER4145 R4145 UNS Number A94145 AA4145 AWS A5.8 BAISI-3		
Metallurgical Background Information	4145 Alcubraze is a solid welding wire produced conventionally and the surface cleaned to remove standard metal working lubricants. 4145 Alcubraze is an Al-Si-Cu welding alloy with low melting range which enables successful repair welds to be made in copper containing heat treatable Al-Alloys.			
Materials To Be Welded, Applications and Advice	Joining grades 201, 206, 224, 314, 330, 354, 355 to 6005, 6061, 6063, 6101, 6151, 6201, 6351, 6951, 6009, 6010, 6070 A356, 37, 413 to 201, 206, 224, 319, 330, 354, 355, C355 LM4, LM16, LM20, LM25, LM5, LM99 to 6000 series as above, cast alloy as shown 2014, 2024. Repair of 2xxx wrought alloys and Al-Cu, Al-Si-Cu casting alloys			
Wire Chemistry WT% (as per AMS)	Silicon – 9.3-10.7%		Zinc – 0.20% max	
	Iron – 0.8% max		Beryllium – 0.0008%	
	Copper – 3.3-4.7%		Other Elements (Total) – 0.15%	
	Manganese – 0.15% max		Other Elements (Each) – 0.05%	
	Magnesium – 0.15% max		Aluminium - Balance	
Weld Properties	Melting range (approx.) 520°C - 585°C Density 2.74gm/cc			
Sizes and Forms of Supply	Straight Length: 2.5 kg Packs 36" / 914mm lengths A range of diameters available Flag tagged (Double tagging and other lengths on request)		Spoiled Wire: Precision layer wound and with controlled cast and helix 300mm diameter standard A range of diameters available	

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