



FILLER METAL SELECTION CHART



PROFESSIONAL ALLOYS...
SUPERIOR RESULTS™

METALS TO BE JOINED	FILLER METALS		MELTING RANGE		FLUIDITY RATING*	FLUXES	TORCHES & FLAMES**	
	SOLDERS	BRAZING FILLER METALS	SOLIDUS °F / °C	LIQUIDUS °F / °C				
Copper or Brass To Copper or Brass	Stay-Brite®		430 / 221	430 / 221	10	Stay-Clean® Soldering Fluxes Bridgit® Water Soluble Paste Flux No flux required for copper-to-copper joints with the phosphorus-bearing filler metals For brass and other alloys of copper, use Stay-Silv® White Brazing Flux	Harris Powertorch® Air - Fuel Equipment Harris Powertorch® Air - Fuel Equipment Harris Powertorch® or Classic Oxy-Acetylene Equipment (neutral flame)	
	Stay-Brite® 8		430 / 221	535 / 279	8			
	Bridgit®		460 / 238	630 / 332	6			
	Blockade®		1178 / 637	1247 / 674	7			
	Harris 0		1310 / 710	1475 / 802	5			
	Stay-Silv® 5		1190 / 643	1500 / 816	3			
	Dynaflow®		1190 / 643	1465 / 796	3			
	Stay-Silv® 6		1190 / 643	1425 / 774	5			
	Stay-Silv® 15		1190 / 643	1480 / 804	3			
Copper or Brass To Steel or Stainless	Stay-Brite®		430 / 221	430 / 221	10	Stay-Clean® Soldering Flux Stay-Silv® White Brazing Flux Stay-Silv® Black Flux for Stainless	Harris Powertorch® Air - Fuel Equipment Harris Powertorch® or Classic Oxy-Acetylene Equipment (slightly reducing flame)	
	Stay-Brite® 8		430 / 221	535 / 279	8			
		Safety-Silv® 56		1145 / 618	1205 / 652			8
		Safety-Silv® 40		1250 / 677	1350 / 732			5
		Safety-Silv® 45		1225 / 663	1370 / 743			6.5
		Safety-Silv® 45T		1195 / 646	1265 / 685			7
Steel or Stainless To Steel or Stainless	Stay-Brite®		430 / 221	430 / 221	10	Stay-Clean® Soldering Flux Stay-Silv® White Brazing Flux Stay-Silv® Black Flux for Stainless	Harris Powertorch® Air - Fuel Equipment Harris Powertorch® or Classic Oxy-Acetylene Equipment (slightly reducing flame)	
	Stay-Brite® 8		430 / 221	535 / 279	8			
		Safety-Silv® 56		1145 / 618	1205 / 652			8
		Safety-Silv® 40		1250 / 677	1350 / 732			5
		Safety-Silv® 40Ni2		1220 / 660	1435 / 779			4.5
		Safety-Silv® 45		1225 / 663	1370 / 743			6.5
		Safety-Silv® 45T		1195 / 646	1265 / 685			7
	Safety-Silv® 50N		1220 / 660	1305 / 707	7			
Steel or Stainless To Carbides	NOT RECOMMENDED					Stay-Silv® White Brazing Flux	Harris Powertorch® or Classic Oxy-Acetylene Equipment (reducing flame)	
		Safety-Silv® 40Ni2		1220 / 660	1435 / 779			4.5
		Safety-Silv® 50N		1220 / 660	1305 / 707			7
Aluminum To Aluminum (1) Aluminum To Copper Or Brass (2)* Aluminum To Steel Or Stainless (2)*	Alsolder® 500		391 / 199	482 / 250	NOT RATED	Stay-Clean® Aluminum Soldering Flux No Flux Required Albraze® 1070 Flux	Harris Powertorch® Air - Fuel Equipment Harris Powertorch® Air - Fuel Equipment Harris Powertorch® Air - Fuel Equipment or Classic Oxy-Acetylene Equipment (reducing flame)	
	Alcor®			824 / 440	NOT RATED			
		Albraze® 1070		1070 / 577	1080 / 582			NOT RATED
		(1) Can be directly brazed or soldered. (2) Solder directly with Alsolder® 500, or coat steel side with aluminum and solder with Alcor® or Braze with Albraze® 1070						

* The higher the fluidity rating, the faster the alloy flows within the melting range.

** For best results and strong leak proof bonds, filler metals should be applied to the joint area only after the parts are heated to the proper brazing or soldering temperature. Oxy-Acetylene torches may be substituted for air-fuel but may require care to prevent overheating of the base metal/flux with the higher temperature flame.

Safety Information: WARNING: PROTECT yourself and others. Read and understand this information. FUMES AND GASES can be hazardous to your health. HEAT RAYS (INFRARED RADIATION) from flame or hot metal can injure eyes. Before use, read and understand the manufacturer's instructions, Material Safety Data Sheet (MSDS) and your employer's safety practices. Keep your head out of fumes. Use enough ventilation, exhaust at the flame, or both, to keep fumes and gases from your breathing zone and the general area. Wear correct eye, ear and body protection. See American National Standard Z49.1, Safety in Welding, Cutting, and Allied Processes, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety Standards, available from the U.S. Government Office, Washington, DC 20402. STATEMENT OF LIABILITY - DISCLAIMER Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. The Harris Products Group and it's affiliates shall have no liability in respect thereof.