

## Application of Duplex & Super Duplex Stainless Steel

This selector guide is a reference tool for choosing the proper stainless duplex or super duplex alloy for a given application. Various products are available for the SMAW, GTAW, GMAW, FCAW and SAW welding processes. The choice of product will depend on the nature of the customer's application and their existing equipment.

Technical product data is available on [www.esabna.com](http://www.esabna.com) website Filler Metals Product Data Sheets.

Application for such products can be found in the pulp & paper, off-shore, process and power piping industries.

Type	Typical Base Metal Composition	Grade	UNS No.	SMAW	GMAW	GTAW	FCAW	SAW
Dpx	23Cr, 4Ni, 0.10N	(SAF) 2304, UR35N	S32304/1.4362	<b>OK 67.50</b> <b>OK 67.55</b> OK 67.51 OK 67.53	<b>Autrod</b> <b>ER2209</b>	<b>Tigrod</b> <b>ER2209</b>	<b>SB 2209</b>	<b>Autrod</b> <b>ER2209/</b> <b>OK 10.93</b>
Dpx	22Cr, 5.5Ni, 3Mo, 0.15N	(SAF) 2205, UR45N	S31803/1.4462 S32205	<b>OK 67.50</b> <b>OK 67.55</b> OK 67.51 OK 67.53	<b>Autrod</b> <b>ER2209</b>	<b>Tigrod</b> <b>ER2209</b>	<b>SB 2209</b>	<b>Autrod</b> <b>ER2209/</b> <b>OK 10.93</b>
S. Dpx	25Cr, 7Ni, 3Mo, 0.14N	DP3	S31260	<b>OK 68.55</b> OK 68.53	Autrod ER2509	<b>Tigrod</b> <b>ER2509</b>	<b>SB 2509</b>	<b>Autrod</b> <b>ER2509/</b> <b>OK 10.94</b>
S. Dpx	25Cr, 6.5Ni, 3Mo, 0.18N	UR47N	S31200	<b>OK 68.55</b> OK 68.53	Autrod ER2509	<b>Tigrod</b> <b>ER2509</b>	<b>SB 2509</b>	<b>Autrod</b> <b>ER2509/</b> <b>OK 10.94</b>
S. Dpx	25Cr, 6Ni, 3Mo, 2Cu, 0.20N	Ferralium 255 UR52N+	S32550	<b>OK 68.55</b> OK 68.53	Autrod ER2509	<b>Tigrod</b> <b>ER2509</b>	<b>SB 2509*</b>	<b>Autrod</b> <b>ER2509/</b> <b>OK 10.94</b>
S. Dpx	25Cr, 6Ni, 3Mo, 0.7Cu, 0.7W, 0.25N	Zeron 100	S32760	<b>OK 68.55</b> OK 68.53	Autrod ER2509	<b>Tigrod</b> <b>ER2509</b>	<b>SB 2509*</b>	<b>Autrod</b> <b>ER2509/</b> <b>OK 10.94</b>
S. Dpx	25Cr, 7Ni, 4Mo, 0.25N	(SAF) 2507	S32750	<b>OK 68.55</b> OK 68.53	Autrod ER2509	<b>Tigrod</b> <b>ER2509</b>	<b>SB 2509</b>	<b>Autrod</b> <b>ER2509/</b> <b>OK 10.94</b>

### Notes:

- Duplex alloys are an important alternative to austenitic stainless steels. These alloys consist of 50% ferrite and 50% austenite.
- Provides excellent corrosion resistance, good toughness and less susceptibility to stress corrosion cracking.
- Items in bold type are currently stocked in NA.
- Additional items are available upon request - contact your ESAB distributor or local Territorial Sales Manager for details.
- Part Numbers are listed on reverse side.
- Shield Bright 2509 is not recommended on Ferralium 255 or UR 52N+ steels where sulfuric acid is present.



# Duplex and Super Duplex Selector Guide

Type	Description (AWS Class)	Diameter	Package	SMAW	GMAW	GTAW	FCAW	SAW
Dpx	<b>OK 67.50 (E2209-17)</b>	2.5mm (3/32")	9.2# Vpac	<b>67502520L0</b>				
Dpx		3.2mm (1/8")	22.4# Vpac	<b>67503230G0</b>				
Dpx		4.0mm (5/32")	22.4# Vpac	<b>67504030G0</b>				
Dpx		5.0mm (3/16")	22.4# Vpac	<b>67505030G0</b>				
Dpx	<b>OK 67.55 (E2209-15)</b>	2.5mm (3/32")	7.9# Vpac	<b>67552520L0</b>				
Dpx		3.2mm (1/8")	11.2# Vpac	<b>67553230T0</b>				
Dpx	<b>Autrod ER2209 (ER2209)</b>	1.0mm (.040")	33# Spl		<b>1686109820</b>			
Dpx	<b>Tigrod ER2209 (ER2209)</b>	2.4mm x 1m (3/32" x 39")	11# Ctn			<b>168624R150</b>		
Dpx		3.2mm x 1m (1/8" x 39")	11# Ctn			<b>168632R150</b>		
Dpx	<b>Autrod ER2209 (ER2209)</b>	2.4mm (3/32")	55# Cl					<b>1686240300</b>
Dpx	<b>OK Flux 10.93</b>		44# Bag					<b>109310000A</b>
Dpx	<b>Shield Bright 2209 (E2209T1-4)</b>	.035"	33# Spl				<b>252201512</b>	
Dpx		.045"	33# Spl				<b>252201504</b>	
Dpx		1/16"	33# Spl				<b>252201496</b>	
S. Dpx	<b>OK 68.55 (ER2594-15)</b>	2.5mm (3/32")	9.2# Vpac	<b>68552520L0</b>				
S. Dpx		3.2mm (1/8")	11.9# Vpac	<b>68553230T0</b>				
S. Dpx		4.0mm (5/32")	21.1# Vpac	<b>68554030G0</b>				
S. Dpx	<b>Tigrod ER2509 (ER2594)</b>	2.4mm x 1m (3/32" x 39")	11# Ctn			<b>168824R150</b>		
S. Dpx		3.2mm x 1m (1/8" x 39")	11# Ctn			<b>168832R150</b>		
S. Dpx	<b>Autrod ER2509 (ER2594)</b>	2.4mm (3/32")	55# Cl					<b>1688240300</b>
S. Dpx	<b>OK Flux 10.94</b>		55# Bag					<b>109400000A</b>
S. Dpx	<b>Shield Bright 2509 (no AWS class)</b>	.045"	33# Spl				<b>252290465</b>	

- Notes:**
- Items in bold type are currently stocked in NA.
  - Additional items are available upon request - contact your ESAB distributor or local Territorial Sales Manager for details.
  - Certificate of Analysis is provided for each heat and/or lot number.