

## OA 612

CATEGORY	FCAW Flux-Cored																						
TYPE	High alloyed fluxcored wire for hardfacing.																						
APPLICATIONS	Bucket teeth, conveyors, cruscher hammers, coal mine cutters, mixer blades, mixer blades etc.																						
PROPERTIES	<p>This alloy offers very good resistance against general abrasion and heavy shock, all weld metal requires no buffer layer except on materials considered critical or in case of old hardfacing layers. In this Situation OA 4370, ER 100 S1 or OA MnCr is recommended.</p> <p>Suited for wear parts subject to strong impact, abrasion and shock. In critical cases the interpass temperature should be kept at 270°C for the best results. The weld metal is only machinable by grinding. Weldable without gas (open arc). (Also weldable under M21 mixed gas)</p>																						
CLASSIFICATION	AWS	A 5.21:																					
	EN ISO	14700: T Fe8																					
	DIN	8555: MF 6-55-RP																					
SUITABLE FOR	54 HRc hardfacing alloy for wear resistant overlays, sand pumps, valve seats, dredger equipment, bucket teeth, stone crushing, hammers etc.																						
APPROVALS	CE approved																						
WELDING POSITIONS:																							
WELD METAL ANALYSIS %	<table border="1"> <thead> <tr> <th>C</th> <th>Mn</th> <th>Si</th> <th>Cr</th> <th>Fe</th> </tr> </thead> <tbody> <tr> <td>0.5</td> <td>1.2</td> <td>0.9</td> <td>12.5</td> <td>rem</td> </tr> </tbody> </table>				C	Mn	Si	Cr	Fe	0.5	1.2	0.9	12.5	rem									
C	Mn	Si	Cr	Fe																			
0.5	1.2	0.9	12.5	rem																			
ALL WELD METAL PROPERTIES	<table border="1"> <thead> <tr> <th rowspan="2">Heat Treatment</th> <th rowspan="2">R<sub>p0,2</sub> (N/mm<sup>2</sup>)</th> <th rowspan="2">R<sub>m</sub> (N/mm<sup>2</sup>)</th> <th rowspan="2">A<sub>5</sub> (%)</th> <th colspan="3">Impact Energy (J) ISO-V</th> <th rowspan="2">Hardness HRC / HV</th> </tr> <tr> <th>-20°C</th> <th>-40°C</th> <th>-60°C</th> </tr> </thead> <tbody> <tr> <td>AW</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>54-56</td> </tr> </tbody> </table>				Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRC / HV	-20°C	-40°C	-60°C	AW							54-56
Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V					Hardness HRC / HV														
				-20°C	-40°C	-60°C																	
AW							54-56																
AW: as welded																							
WELDING PARAMETERS PACKING	<table border="1"> <thead> <tr> <th colspan="3">Welding Parameters</th> <th colspan="2">Packing</th> </tr> <tr> <th>D (mm)</th> <th>Voltage (V)</th> <th>Current (A)</th> <th>spool type</th> <th>kg / spool / drum</th> </tr> </thead> <tbody> <tr> <td>1.6</td> <td>24-34</td> <td>160-330</td> <td>S-300 / Drum</td> <td>15 / 250</td> </tr> </tbody> </table>				Welding Parameters			Packing		D (mm)	Voltage (V)	Current (A)	spool type	kg / spool / drum	1.6	24-34	160-330	S-300 / Drum	15 / 250				
Welding Parameters			Packing																				
D (mm)	Voltage (V)	Current (A)	spool type	kg / spool / drum																			
1.6	24-34	160-330	S-300 / Drum	15 / 250																			
REDRYING TEMPERATURE	150°C / 24hr																						
STICK OUT	25-40 mm																						