

# JWE

## NOBLE WHITE TYPE 3 CROWN & BRIDGE ALLOY

**JWE** is copper-free, silver-palladium, crown and bridge casting alloy. Economical, it's perfect for most types of restorative work including onlays, crowns, and short-span bridges. The high melting range of JWE allows processing with the same investment, burnout and casting techniques as ceramic alloys. JWE is similar in composition to JWG, however the main difference between the two is that JWE contains no gold.

PROPERTIES		CHEMISTRY	
Melting Range	1975° to 2175°F (1080° to 1190°C)	Silver	71.5%
Density	10.6 g/cm <sup>3</sup>	Palladium	25%
Hardness	160 HV	Indium	2.5%
Tensile Elongation	15%	Zinc	1%
Tensile Yield Strength	43,500 psi (300 MPa)	Au & Pt group -	25%
Ultimate Tensile Strength	62,400 psi (430 MPa)	Classification -	Noble

### PROCESSING TECHNIQUE

<b>SPRUING</b>	The indirect method is recommended for multi-units. Use an 8 gauge runner bar with 10 gauge connectors. If preferred, the direct method may be used on both single units and small bridges. Use a 10 gauge sprue 1/4" (6mm) to 3/8" (9mm) long. Sprues longer than 3/8" (9mm) should have a reservoir 1/16" (1.5mm) from pattern. Patterns should be a maximum of 1/4" (6mm) from top of investment.
<b>INVESTMENT</b>	A phosphate-bonded high heat investment without carbon is recommended.
<b>BURNOUT</b>	1300°F (705°C)
<b>MELTING AND CASTING</b>	Extra winds of the casting arm are not required. A gas/compressed air or gas/oxygen flame with 10 psi gas and 20 psi oxygen is recommended. As the alloy melts, a cloudy surface will appear. Continue heating to a clear surface. <b>DO NOT OVERHEAT.</b> The casting temperature is 2250°F (1230°C). Water quench when the button is below a red heat.
<b>DEVESTING AND FINISHING</b>	Blast with aluminum oxide to remove investment particles and oxidation. Finish and polish using standard techniques.
<b>SOLDER AND FLUX</b>	Solder: 1400 Solder Flux: Brown Fluoride Flux

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