

JYE

NOBLE YELLOW TYPE 4 CROWN & BRIDGE ALLOY

JYE is a noble Type 4 crown and bridge casting alloy. It is one of a group of medium gold content casting alloys offered by Jensen Dental. JYE features 57% nobility, yellow gold color, high strength, moderate cost, and melts, casts, finishes and polishes like a very high gold content alloy. Processing of JYE, due to its lower silver and higher melting range, is fast and easy.

PROPERTIES		
Melting Range	1545° to 1635°F (840° to 890°C)	
Density	12.8 g/cm ³	
	HARDENED	SOFTENED
Hardness	280HV	245HV
Tensile Elongation	10%	23%
Tensile Yield Strength	111,000 psi (775 MPa)	87,600 psi (605 MPa)
Ultimate Tensile Strength	117,000 psi (810 MPa)	93,600 psi (645 MPa)

CHEMISTRY	
Gold	52%
Silver	24%
Copper	18%
Palladium	5%
Contains less than 1% Zinc, Indium, Iridium	
Au & Pt group - 57%	
Classification - Noble	

PROCESSING TECHNIQUE

SPRUIING

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.

INVESTMENT AND BURNOUT

Either gypsum or phosphate bonded investment may be used following the manufacturer's instructions. The burnout temperature should be at least 900°F (480°C) and should not exceed 1200°F (650°C).

MELTING AND CASTING

Extra winds of the casting arm are not required. A gas/compressed air or gas/oxygen flame with 5 psi gas and 10 psi oxygen is recommended. The alloy will fully puddle and form a ball before it is ready to cast. **DO NOT OVERHEAT.** The casting temperature is 1750°F (950°C). Bench cool to obtain the hardened condition. Water quench from a dull red heat to obtain the softened condition.

DEVESTING AND FINISHING

Blast with aluminum oxide to remove investment particles and oxidation. Finish and polish using standard techniques.

SOLDER AND FLUX

Solder: 615 Fine Solder
Flux: Brown Fluoride Flux

5008Y r1

