



# ARGEDENT 90

## Pure life.

### Pure beauty

Rich gold color allows for warm life-like porcelain shades.

### Pure radiance

Light oxide provides excellent shade control and vitality.

### Pure ease

Easier to polish than other yellow high gold alloys.

### Pure strength

Used for both anterior and posterior short and medium span bridge work.

### Pure compatibility

Compatible with all major porcelains.

### Pure value

More economical than most other yellow high gold alloys.



|                |               |
|----------------|---------------|
| 89.5% Gold     | 5.8% Platinum |
| 1.5% Palladium | 1.2% Silver   |



*Alloy Makers to the World*

#### USA

Customer Service (800) 255-5524  
Technical Service (800) 255-5095

#### CANADA

Argen Canada (866) 722-7436  
Quebec Province (514) 984-1808

[www.argen.com](http://www.argen.com)





The Argen Corporation  
Alloy Specification Sheet

# ARGEDENT 90 PORCELAIN ALLOY

ARGEDENT 90 is a hard, deep yellow color porcelain alloy compatible with most dental porcelain systems available on the market. It is recommended for single crowns and short span bridges.

## COMPOSITION

| Gold   | Platinum | Palladium | Silver | Tin | Iridium | Indium | Iron |
|--------|----------|-----------|--------|-----|---------|--------|------|
| 89.5 % | 5.8 %    | 1.6 %     | 1.2 %  | X   | X       | X      | X    |

"X" denotes a content of less than one percent.

## PHYSICAL PROPERTIES

| Melting Range             | Casting Temperature | Density                |
|---------------------------|---------------------|------------------------|
| 1904-2111°F (1040-1155°C) | 2372°F (1300°C)     | 18.8 g/cm <sup>3</sup> |

## MECHANICAL PROPERTIES

| Vickers Hardness |      | Yield Strength (0.2% Offset)        |                                     | Ultimate Tensile Strength           |                                     | Elongation % |      | Co-efficient of Thermal Expansion<br>x10 <sup>-6</sup> /°C |
|------------------|------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------|------|--|
| soft             | hard | soft                                | hard                                | soft                                | hard                                | soft         | hard | 25-600 °C  |
| 125              | 140  | 201 N/mm <sup>2</sup><br>29,100 psi | 224 N/mm <sup>2</sup><br>32,500 psi | 319 N/mm <sup>2</sup><br>46,300 psi | 332 N/mm <sup>2</sup><br>48,100 psi | 15           | 10   | 15.0   |

## INSTRUCTIONS FOR USE

### WAXING AND SPRUING

| Single Crowns   | Multi-Units & Bridges  |
|---|--|
| A minimum of 0.5mm wax thickness is recommended. Use direct sprues, 8-10 gauge, (3.3-2.6 mm diameter) and 1/2" (12 mm) long with adequate reservoirs. | Wax pattern design should have lingual collars and no sharp corners. Use a 6 gauge (4.1 mm diameter) runner bar, connecting the units to the bar with 10 gauge (2.6 mm diameter) sprues 1/8" (3 mm) long and joining the bar to the sprue base with 8 gauge (3.3 mm diameter) and 1/2" (12mm) long sprues coming from a domed central entry point. |
| In all cases there should be no more than 1/4" (6 mm) of investment from the top of the pattern to the top of the investment.                         |  |

**INVESTING** A high-heat (phosphate-bonded) investment is required. Follow the manufacturer's instructions.

**BURNOUT** After adequate set-up time, place the ring(s) in a room temperature oven and raise the temperature to 800°F (427°C) and hold for 30 minutes. Then raise the temperature to 1450°F (788°C) and hold for one hour plus 10 minutes for each additional ring. If you are using a rapid-fire investment, follow the manufacturer's instructions.

**CASTING** We recommend casting in a quartz crucible using a gas/oxygen torch with a multi-orifice tip. If you are using induction casting, set the machine for 2372°F (1300°C) casting temperature. Add 50% new metal to the cleaned buttons.

**FINISHING** Grind porcelain bearing surfaces with metal finishing carbide burs. Use moderate speed and light hand pressure. Blasting is not required. Clean in distilled water using an ultrasonic cleaner for ten minutes

**DEGASSING** Insert the casting in furnace at 1200°F (649°C). Then raise the temperature to 1800°F (982°C) without vacuum. Do not hold. Allow to bench cool. Opaque directly on the oxide.

**OPAQUEING** Follow the recommendations of the porcelain manufacturer. For better bonding, first fire a thin wash of opaque at 10-15°F (10°C) above normal temperature, followed by regular opaque coats.

**SOLDERING** Use Solder YSF for pre-soldering. Use Solder 650 or 720 for post-soldering.