

## **Composition of casting alloys used by DyCast Specialties**

### **Alloys**

| Alloy       | Zinc             | Zinc-Aluminum   |      |
|-------------|------------------|-----------------|------|
| Common Name | Zamak 5<br>AC41A | ZA-8<br>B669-84 | ZA27 |

### **Composition**

|                    |             |             |            |
|--------------------|-------------|-------------|------------|
| Copper             | .75 to 1.25 | .8 to .13   | 2 to 2.5   |
| Aluminum           | 3.5 to 4.3  | 8 to 8.3    | 25 to 28   |
| Magnesium          | .03 to .08  | .015 to .03 | .01 to .02 |
| Iron (Max)         | .100        | .100        | .075       |
| Lead (Max)         | .005        | .004        | .006       |
| Cadmium (Max)      | .004        | .003        | .006       |
| Tin (Max)          | .003        | .002        | .003       |
| Nickel             | -           | -           | -          |
| Zinc 99.99%+Purity | Remainder   | Remainder   | Remainder  |

Casting alloys are durable and have good strength, are light weight, rust proof and corrosion resistant, have excellent current carrying and wear properties, are easily finished by plating or with organic or inorganic finishes, have self-lubricating properties and excellent castability.

ZAMAK 5 – has the highest impact strength of all the zinc based alloys, is approximately 10% higher in tensile strength than Zamak 3.

ZA-8 – has good creep strength. It is also higher in tensile strength than all the Zamak alloys. It also has superior plating and finishing characteristics.

ZA-27 – has a high melting point, the highest strength and the lowest density of the ZA alloys.

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