



**FRANCONIA  
INDUSTRIES**

**HIGH-QUALITY  
BRASS  
SUPPLIER**





# QUALITY MADE IN GERMANY

**Franconia Industries is the sales organization of Diehl Brass Solutions in North America. With over fifty years of experience, we are your long-term partner, providing semi-finished brass solutions such as solid and hollow rods, tubes, and profiles made of high-quality brass. Franconia's customers successfully use our products in applications such as plumbing, heating, automotive, and electronics.**

Diehl Brass Solutions is Germany's largest brass mill and one of the major European producers of semi-finished products with an annual production capacity of 300 million pounds.

As the world's biggest producer of high-tensile brass semi-finished products, the company supplies the markets with more than sixty different alloys.

Our alloy portfolio includes standard brasses produced to ASTM standards as well as innovative alloys for highly complex technical applications.

We utilize state-of-the-art, fully automated machines, along with in-house developed and manufactured tools and machines. We work closely with our customers to create optimized alloys for their machining or forging requirements.





With over 100 years of experience, we offer a large selection of brass alloys with expert knowledge in leaded, low-leaded, and lead-free brass alloys. We are committed to short delivery times for common dimensions and high runners. Our state-of-the-art warehouse is located in Elk Grove Village, IL. Our customers typically experience a lead-time of 3-5 days.

As a major high-end manufacturer of sophisticated high-quality semi-finished brass products we serve markets worldwide. With a deep understanding of your specific needs, our representatives across America enable the most flexible and best service.

#### Available semi-finished shapes



UNS	Chemical composition	Density lbs/in <sup>3</sup>	Linear expansion coefficient 10 per °F (68 – 572 °F)	Electrical conductivity IACS at 68° F	Machinability	Hot working property	Cold working property
C36000	CuZn36Pb3	0.307	11.4	26%	excellent	good	good
C49400	CuZn41Mg	0,296	11.3		very good	very good	less suitable
C69300	CuZn21Si3P	0.300	10.4	8%	very good	very good	less suitable
C27450	CuZn40	0.303	11.4	27%	less suitable	excellent	moderate
C37000	CuZn38Pb1	0.305	11.6	27%	medium-good	good	medium-good
C37700	CuZn39Pb2	0.303	11.5	27%	excellent	excellent	poor
C27453	CuZn38As	0.303	12	28%	fair	moderate	excellent
C38500	CuZn39Pb3	0.307	11.6	28%	excellent	excellent	poor
C38000	CuZn40Pb2	0.303	11.5	27%	excellent	excellent	poor
C27200	CuZn37	0.305	11.4	27.6%	poor	poor	excellent
C35330	CuZn36Pb2As	0.305	12.4	26%	good	medium	good
C69305	CuZn21Si3P	0.299	10.9		very good	very good	moderate

#### Size range

Rods: .250" - 4.000"  
 Hexagonal: .250" - 2.375"  
 Square: .250" - 2.375"  
 Hollow Rods: Please contact us



# LEAD-FREE BRASS SOLUTIONS

## eZeebrass - The New Standard

eZeebrass is the innovative lead-free brass that sets new standards and meets tomorrow's regulatory requirements today!

Discover eZeebrass and benefit from a cost-effective solution that meets the highest standards in performance.



- .ecological
- .zero lead
- .easy to machine
- .economical

## **C49400** eZeebrass - On the way to a lead-free future!

eZeebrass is the innovative lead-free brass that sets new standards and meets tomorrow's regulatory requirements today! eZeebrass delivers top quality results, not only ecologically but also economically.

Thanks to its optimized composition, eZeebrass ensures excellent machinability, forging, and processing capabilities with a low copper content. Plus, it's entirely lead-free.

### **Material Properties**

Our goal was to transfer the proven properties of existing brass alloys like C36000 to a lead-free variant. The result is eZeebrass, which consists of approximately 58% copper, 41% zinc, and 0.4% magnesium.

### **Chip Breaking**

The addition of magnesium is a game changer, achieving a chip breaking effect similar to lead in standard brasses. This leads to short breaking chips at high cutting speeds, making eZeebrass suitable for all automated machining processes.

### **Corrosion Resistant**

eZeebrass matches the corrosion resistance of standard brass materials, passing relevant stress corrosion cracking test to ISO 6957 specs.

## **C69300** Our Lead-Free Brass Solution

C69300 is a sustainable and safe lead-free copper alloy with the same chemical composition as EcoBrass.

### **Material Properties**

This alloy is specifically designed to meet the requirements of drinking water installations, ensuring compliance with current legal standards, safety, hygiene, and health aspects.

### **Sustainability**

Due to its chemical composition, C69300 is fully recyclable, supporting sustainability. C69300 provides your customers with a comfortable and safe feeling – with no compromises.

## **C69300 - Our Lead-Free Brass Solution for Drinking Water Applications**

Introducing C69300, our lead-free brass solution designed specifically for drinking water applications. Benefit from a durable, corrosion-resistant material that provides peace of mind while meeting today's regulatory demands.

# OUR EXPERTS ARE HERE FOR YOU

We are your supplier of high-quality brass rods and engineered solutions. Please feel free to contact us for technical support or to request a quote for lead, low-lead, and lead-free brass.

You can download all specifications for the desired alloy from our [website](#). In our material data sheets, you will find a list of the physical, thermal, mechanical, and resistance properties. In addition you will find more information regarding our ISO certifications.





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