

## Mueller EcoStream™, GreenDrop™, C27451 DZR Lead Free Plumbing Brass

Category : Metal , Nonferrous Metal , Copper Alloy , Brass

### Material Notes:

To further compliment its EcoStream™ family of alloys, Mueller Brass Company has developed a dezincification resistant version of its GreenDrop™, C27450 Lead Free Brass Alloy. This new alloy, C27451, is currently patent pending and is specifically designed for machined or forged parts and components requiring compliance to both lead free and dezincification resistance criteria adopted by potable water and PEX standards and applications. Compliant & Competitive & Compatible Although specifically developed for parts requiring compliance to dezincification resistance standards; Mueller Brass Company's C27451 alloy still retains the same inherent advantages over other lead free alloys offered by other manufacturers. With the customer as its core focus, Mueller Brass Company developed C27451 to not only aide manufacturers with their compliance needs, but also develop an alloy that would help manufacturers control their material costs and retain their competitive advantage. Since no expensive additives or potential contaminants like silicon or bismuth are added, C27451 DZR Lead Free Brass is completely recyclable and compatible with all EcoStream™ and conventional leaded alloys widely used today. Since the need for segregation, the cleaning out of machines or the rejection of contaminated scrap is virtually eliminated; C27451 offers the manufacturer the additional benefits of manufacturing efficiency and productivity.

**Advantages:** Good machinability  
Excellent forgeability  
Excellent brazing and plating  
Excellent ability to Thread Roll  
Dezincification Resistant

**Applications:** Potable water components, fixtures and applications  
PEX plumbing applications and systems  
Forged products requiring lead free and/or dezincification compliance

Information Provided by Mueller Industries Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Mueller-EcoStream-GreenDrop-C27451-DZR-Lead-Free-Plumbing-Brass.php](http://www.lookpolymers.com/polymer_Mueller-EcoStream-GreenDrop-C27451-DZR-Lead-Free-Plumbing-Brass.php)

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	55 - 75	55 - 75	
Tensile Strength at Break	379 MPa	55000 psi	
Tensile Strength, Yield	241 MPa	35000 psi	
Elongation at Break	30 %	30 %	
Machinability	70 %	70 %	
Forgeability	95 %	95 %	

Component Elements Properties	Metric	English	Comments
Copper, Cu	60 - 65 %	60 - 65 %	
Iron, Fe	<= 0.35 %	<= 0.35 %	
Lead, Pb	<= 0.25 %	<= 0.25 %	
Other	<= 0.50 %	<= 0.50 %	
Phosphorous, P	0.050 - 0.12 %	0.050 - 0.12 %	

Zinc Zn	33.78 - 39.95 %	33.78 - 39.95 %	Remainder
Component Elements Properties	Metric	English	Comments

Descriptive Properties	Value	Comments
Brazing	Excellent	
Cold Working	Excellent	
Plating	Excellent	
Soldering	Excellent	

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