












**FÓRMULAS PARA CÁLCULO DE PESO**

	<b>COBRE</b>	<b>LATÃO</b>	<b>ALUMÍNIO</b>
<b>Pesos Específicos</b>	8,90	8,45	2,70
 <b>Barras Redondas</b>	$D^2 \times 0,007021$	$D^2 \times 0,00676$	$D^2 \times 0,002119$
 <b>Barras Sextavadas</b>	$F^2 \times 0,007742$	$F^2 \times 0,007364$	$F^2 \times 0,002344$
 <b>Barras Quadradas</b>	$L^2 \times 0,008941$	$L^2 \times 0,0085$	$L^2 \times 0,002698$
 <b>Barras Retangulares</b>	$E \times L \times 0,008941$	$E \times L \times 0,0085$	$E \times L \times 0,002698$
<b>Tubos Redondos</b>	$D^2 - d^2 \times 0,007068$	$D^2 - d^2 \times 0,006676$	$D^2 - d^2 \times 0,002126$
 <b>Chapas 1200 x 600mm</b>	$E \times 6,41$	$E \times 6,10$	$E \times 1,944$
 <b>Chapas 2000 x 1000mm</b>	$E \times 17,50$	$E \times 16,90$	$E \times 5,40$
 <b>Discos</b>	$D^2 \times E \times 6,99$	$D^2 \times E \times 6,636$	$D^2 \times E \times 2,12$
 <b>Bobinas</b>	$L \times E \times 8,90$	$L \times E \times 8,45$	$L \times E \times 2,7$
 <b>Perfil T</b>	$(2 \times L \times E^2) \times 0,0089$	$(2 \times L \times E^2) \times 0,0085$	$(2 \times L \times E \times E^2) \times 0,0027$
 <b>Perfil L</b>	$\{2 \times L \times (E - E^2)\} \times 0,0089$	$\{2 \times L \times (E - E^2)\} \times 0,0085$	$\{2 \times L \times (E - E^2)\} \times 0,0027$
 <b>Perfil U</b>	$\{3 \times L \times (E - E^2)\} \times 0,0059$	$\{3 \times L \times (E - 2E^2)\} \times 0,0085$	$\{3 \times L \times (E - 2E^2)\} \times 0,0027$

Cálculo para tarugos e buchas de bronze com 500mm de comprimento - (acrescentar o sobremetal de 1/16")

Tarugo:  $D^2 \times 0,003534$  Ex: Tarugo de 1"  $(25,40 + 1,58) = 26,98$   
 $26,98 \times 26,98 \times 0,003534 = 2,570\text{kg}$

Buchas:  $D^2 - d^2 \times 0,003534$  Ex: Bucha de 2" x 1"  $(50,80 + 1,58) \times (25,40 - 1,58)$   
 $52,38^2 - 23,82^2 \times 0,003534 = 7,690\text{kg}$