

## Calculation of the temperature of a mix of flows

### Initial data

<b>20°C   2997 kg</b>	Flow №1	<b>40°C   3969 kg</b>	Flow №2
<b>60°C   4916 kg</b>	Flow №3	<b>80°C   5831 kg</b>	Flow №4
<b>100°C   6706 kg</b>	Flow №5	<b>120°C   7534 kg</b>	Flow №6

### Calculation results

2997kg + 3969kg + 4916kg + 5831kg + 6706kg + 7534kg  
= 31953 [kg]      Total mass

2997kg\*20°C + 3969kg\*40°C + 4916kg\*60°C  
+ 5831kg\*80°C + 6706kg\*100°C + 7534kg\*120°C =  
2554820 [kcal]      Contained heat

**2554820 [kcal] / 31953 [kg] = 80 [°C]**      The temperature of the water after mixing several flows

**8.000 m3 | 7534 kg | 120 °C**

**7.000 m3 | 6706 kg | 100 °C**

**6.000 m3 | 5831 kg | 80 °C**

**5.000 m3 | 4916 kg | 60 °C**

**4.000 m3 | 3969 kg | 40 °C**

**3.000 m3 | 2997 kg | 20 °C**

