## Kölsch Franek

- Gravity 13.3 BLG
- ABV 5.5 %
- IBU **61**
- SRM **2.7**
- Style Kölsch

### **Batch size**

- Expected quantity of finished beer 76 liter(s)
- Trub loss 2 %
- Size with trub loss 77.5 liter(s)
- Boil time 80 min
- Evaporation rate 10 %/h
- Boil size 88.7 liter(s)

#### **Mash information**

- Mash efficiency 80 %
- Liquor-to-grist ratio 4 liter(s) / kg
- Mash size 68 liter(s)
- Total mash volume 85 liter(s)

### **Steps**

- Temp **66 C**, Time **30 min** Temp **70 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

# Mash step by step

- Heat up 68 liter(s) of strike water to 71.8C
- Add grains
- Keep mash 30 min at 66C
- Keep mash 15 min at 70C
- Keep mash 1 min at 78C
- Sparge using 37.7 liter(s) of 76C water or to achieve 88.7 liter(s) of wort

## **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Pilzneński	16 kg (94.1%)	80 %	2
Grain	Płatki owsiane	1 kg (5.9%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	60 g	70 min	4 %
Boil	East Kent Goldings	30 g	20 min	4 %
Boil	Challenger	90 g	70 min	7 %
Boil	Challenger	60 g	20 min	7 %
Boil	Cascade	120 g	70 min	5.8 %

#### **Yeasts**

Name	Туре	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	60 ml	Fermentum Mobile
Safale US-05	Ale	Dry	23 g	Fermentis

#### **Extras**

Туре	Name	Amount	Use for	Time
Fining	mech Irlandzki	20 g	Boil	10 min