

## #7 Koelsch

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- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **26**
- SRM **3.3**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **17 liter(s)**

### Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12.8 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.7 kg (87.1%)	81 %	4
Grain	Pszeniczny	0.4 kg (9.4%)	85 %	4
Grain	Cara-Pils/Dextrine	0.15 kg (3.5%)	72 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Hallertau Spalt Select	30 g	0 min	5.3 %
Boil	Hallertau Spalt Select	30 g	50 min	5.3 %
Boil	Columbus/Tomahawk/Zeus	5 g	50 min	14.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saf-ale K-97	Ale	Dry	11.5 g	Fermentis