

## #12 Koelsch

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **25**
- SRM **3.2**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **25 %/h**
- Boil size **28.9 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

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

### Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **15 min** at **78C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słodownia Strzegom - pilzneński	4.6 kg (92%)	80 %	3
Grain	Wheat, Flaked	0.4 kg (8%)	77 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	6 g	60 min	12.5 %
Boil	Marynka	5 g	60 min	10 %
Boil	Marynka	20 g	15 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

### Notes

- Zacieranie 70 min 66 C  
Przed gotowaniem 28 L brzeczki 13 Blg  
Dolane ok 3 L wody  
Po gotowaniu 18 L brzeczki 14,2 Blg  
Dolane 4,2 L wody do 11,5 Blg  
Zrehydratyzowane suchary US-05 zadane w 19 C (niezbyt rześkie)  
Po 2 tygodniach burzliwej zeszło do ok. 2,5Blg (wg refraktometru do 2,2)

*Jul 5, 2018, 6:41 PM*