

## #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*