

## Kölsch 2

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- Gravity **12.1 BLG**
- ABV ---
- IBU **45**
- SRM **4.3**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

### Fermentables

| Type  | Name                              | Amount         | Yield | EBC |
|-------|-----------------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt         | 2.5 kg (45.5%) | 85 %  | 7   |
| Grain | Weyermann - Bohemian Pilsner Malt | 3 kg (54.5%)   | 81 %  | 4   |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Junga             | 40 g   | 60 min | 11.1 %     |
| Aroma (end of boil) | Lublin (Lubelski) | 50 g   | 0 min  | 4 %        |

### Yeasts

| Name                 | Type  | Form | Amount | Laboratory     |
|----------------------|-------|------|--------|----------------|
| M54 california lager | Lager | Dry  | 10 g   | Mangrove jacks |

### Extras

| Type    | Name       | Amount | Use for | Time   |
|---------|------------|--------|---------|--------|
| Finning | Irish Moss | 4 g    | Boil    | 10 min |