

## Kölsch 3.1

---

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **4**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **42 liter(s)**
- Trub loss **3 %**
- Size with trub loss **43.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **3 %/h**
- Boil size **46.2 liter(s)**

### Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **35 liter(s)**
- Total mash volume **45 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **35 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Sparge using **21.2 liter(s)** of **76C** water or to achieve **46.2 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount          | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Pale Ale Mep©Ale     | 3.75 kg (37.5%) | 80 %  | 6   |
| Grain | Pszeniczny Mep©Wheat | 2.5 kg (25%)    | 85 %  | 5   |
| Grain | Lager Malteurop      | 3.75 kg (37.5%) | 81 %  | 3   |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 30 g   | 60 min | 7.2 %      |
| Aroma (end of boil) | Lublin (Lubelski) | 40 g   | 10 min | 4 %        |
| Boil                | Marynka           | 10 g   | 60 min | 8.7 %      |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-33 | Ale  | Dry  | 23 g   | Fermentis  |