

Koelsch

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **24**
- SRM **3.6**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **20.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.5 kg (74.5%) | 80 % | 4 |
| Grain | Słód pszeniczny | 1 kg (21.3%) | 82 % | 5 |
| Adjunct | Łuska ryżowa | 0.2 kg (4.3%) | 1 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Cascade PL | 20 g | 60 min | 5.2 % |
| Boil | Cascade PL | 20 g | 30 min | 5.2 % |
| Aroma (end of boil) | Cascade PL | 15 g | 10 min | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-33 | Ale | Dry | 8 g | Fermentis |