

Koelsch

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **25**
- SRM **3.7**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (89.3%) | 80 % | 4 |
| Grain | Pszeniczny | 0.3 kg (5.4%) | 85 % | 4 |
| Grain | Płatki orkiszowe | 0.3 kg (5.4%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |
| Aroma (end of boil) | Tettnang | 30 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------------|------|-------|---------|------------|
| WLP029 - German Ale/Kölsch Yeast | Ale | Slant | 1500 ml | White Labs |