

Kolsh

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **3.7**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **16.7 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **55 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **55 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | MEP@Lager | 3.5 kg (94.6%) | 82 % | 6 |
| Grain | Strzegom Pszeniczny | 0.2 kg (5.4%) | 81 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | Tradition | 18 g | 60 min | 5.5 % |
| Boil | Hallertau Blanc | 10 g | 15 min | 9 % |
| Boil | Hallertau Blanc | 10 g | 10 min | 9 % |
| Boil | Hallertau Blanc | 10 g | 5 min | 9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------------|------|-------|--------|------------|
| WLP029 - German Ale/Kölsch Yeast | Ale | Slant | 100 ml | White Labs |