

kolsch

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **20**
- SRM **4.2**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **28.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Pilzneński | 5.2 kg (72.2%) | 81 % | 4 |
| Grain | Viking Pale Ale malt | 1 kg (13.9%) | 80 % | 5 |
| Grain | Pszeniczny | 1 kg (13.9%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 45 g | 60 min | 4 % |
| Boil | Lublin (Lubelski) | 15 g | 20 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|--------|--------|------------------|
| FM42 Stare Nadreńskie | Ale | Liquid | 100 ml | Fermentum Mobile |