

Kolc

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **18**
- SRM **4.6**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **67.5 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|-------------|-------|-----|
| Grain | Best ale crisp | 3 kg (100%) | 82 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | lunga | 5 g | 60 min | 11 % |
| Aroma (end of boil) | Lublin (Lubelski) | 15 g | 20 min | 4 % |
| Whirlpool | Lublin (Lubelski) | 15 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|--------|---------|------------|
| FM42 Stare Nadreńskie | Ale | Liquid | 1000 ml | --- |