

KOLOŃSKIE

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **32**
- SRM **3.3**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **0 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **45 C**, Time **5 min**
- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **5 min** at **45C**
- Keep mash **10 min** at **52C**
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 4 kg (88.9%) | 80.5 % | 4 |
| Grain | Słód orkiszowy | 0.25 kg (5.6%) | 80 % | 5 |
| Grain | Pszoniczny | 0.25 kg (5.6%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 13 % |
| Boil | Perle | 10 g | 15 min | 7 % |