

kolońskie

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **3.5**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **42 C**, Time **10 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **45.4C**
- Add grains
- Keep mash **10 min** at **42C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	5 kg (83.3%)	85 %	4
Grain	Słód pszeniczny Bestmalz	1 kg (16.7%)	85 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	30 g	60 min	7 %
Aroma (end of boil)	Perle	20 g	10 min	7 %
Aroma (end of boil)	Oktawia	20 g	10 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis