

Sour ale

- Gravity **6.3 BLG**
- ABV **2.4 %**
- IBU **3**
- SRM **2.2**
- Style **Berliner Weisse**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **6 %**
- Size with trub loss **27.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **32.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **13.9 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **24.9 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	2.1 kg (67.7%)	81 %	4
Grain	Pszeniczny	1 kg (32.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	7 g	60 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Slant	500 ml	2 pokolenie
<i>Lactobacillus plantarum</i>	Ale	Dry	2 g	do zakwaszenia

Extras

Type	Name	Amount	Use for	Time
Other	łuska ryżowa	150 g	Mash	10 min

Namoczyć przed, dodać pod koniec zacierania w 72st.