

## #117 Hejka sąsiadko

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **16**
- SRM **5.5**
- Style **Roggenbier**

### Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **6 %**
- Size with trub loss **21.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **23.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.2 liter(s)**

### Steps

- Temp **44 C**, Time **15 min**
- Temp **67 C**, Time **50 min**
- Temp **75.6 C**, Time **2 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **47.6C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **50 min** at **67C**
- Keep mash **2 min** at **75.6C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **23.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt Żytni	2.2 kg (52.4%)	85 %	8
Grain	Viking Malt Pilszeński	1.2 kg (28.6%)	80 %	4
Grain	Viking Malt Monachijski Jasny	0.4 kg (9.5%)	80 %	16
Grain	Viking Malt Karmelowy	0.4 kg (9.5%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lubelski PL 2020 granulat	25 g	60 min	5.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	30 ml	Fermentum Mobile