

## #106 Hejka sąsiadko

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

### Batch size

- Expected quantity of finished beer **20.7 liter(s)**
- Trub loss **6 %**
- Size with trub loss **21.9 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 **45 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 **48.8C**
- Add grains
- Keep mash **15 min** at **45C**
- 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 Pilsneński        | 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 |