

## #129a ctrl+F bez ekstraktu

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **35**
- SRM **4.7**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **6 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **24.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **25.4 liter(s)**

### Steps

- Temp **69 C**, Time **90 min**

### Mash step by step

- Heat up **19.1 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **90 min** at **69C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

### Fermentables

| Type  | Name              | Amount         | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Viking pilzneński | 2.1 kg (33.1%) | 82 %  | 4   |
| Grain | Viking pszeniczny | 2.1 kg (33.1%) | 83 %  | 5   |
| Grain | Viking owsiany    | 1 kg (15.7%)   | 61 %  | 5   |
| Grain | Vienna Malt       | 0.4 kg (6.3%)  | 78 %  | 8   |
| Grain | Płatki owsiane    | 0.4 kg (6.3%)  | 60 %  | 3   |
| Grain | Słód enzymatyczny | 0.2 kg (3.1%)  | 80 %  | 5   |
| Grain | Płatki pszeniczne | 0.15 kg (2.4%) | 60 %  | 3   |

### Hops

| Use for             | Name             | Amount | Time   | Alpha acid |
|---------------------|------------------|--------|--------|------------|
| Boil                | Perle PL 2018    | 50 g   | 60 min | 5 %        |
| Boil                | Amarillo US 2020 | 10 g   | 20 min | 8.7 %      |
| Aroma (end of boil) | Mosaic US 2019   | 10 g   | 10 min | 12.6 %     |

### Yeasts

| Name                | Type | Form  | Amount | Laboratory |
|---------------------|------|-------|--------|------------|
| WLP066 - London Fog | Ale  | Slant | 100 ml | White Labs |