

Jacek Wróbel

- Gravity **21.3 BLG**
- ABV **9.5 %**
- IBU **36**
- SRM **27.6**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **9.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **11.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.7 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **11 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **4 liter(s)** of **76C** water or to achieve **11.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Pilzneński | 2.1 kg (57.2%) | 81 % | 4 |
| Grain | Caraaroma | 0.52 kg (14.2%) | 78 % | 400 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (13.6%) | 79 % | 16 |
| Grain | Płatki owsiane | 0.3 kg (8.2%) | 85 % | 3 |
| Grain | Weyermann - Carapils | 0.25 kg (6.8%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 15 g | 60 min | 14 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|-------|--------|--------|------------|
| WLP885 - Zurich Lager Yeast | Lager | Liquid | 100 ml | White Labs |