

## Portierów dwóch.

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **43**
- SRM **22.1**
- Style **Baltic Porter**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **100 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.2 liter(s)**
- Total mash volume **33.6 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **25.2 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield  | EBC |
|-------|-----------------------------|----------------|--------|-----|
| Grain | Strzegom Pilzneński         | 3 kg (35.7%)   | 80 %   | 4   |
| Grain | Strzegom Monachijski typ II | 2 kg (23.8%)   | 79 %   | 22  |
| Grain | Strzegom Wiedeński          | 1.7 kg (20.2%) | 79 %   | 10  |
| Grain | Viking Pale Ale malt        | 0.7 kg (8.3%)  | 80 %   | 5   |
| Grain | Weyermann Caramunich 3      | 0.3 kg (3.6%)  | 76 %   | 150 |
| Grain | Caramunich® typ I           | 0.3 kg (3.6%)  | 73 %   | 80  |
| Grain | Special B Malt              | 0.2 kg (2.4%)  | 65.2 % | 100 |
| Grain | Jęczmień palony             | 0.2 kg (2.4%)  | 55 %   | 985 |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Warrior           | 30 g   | 60 min | 15.5 %     |
| Boil    | Lublin (Lubelski) | 25 g   | 20 min | 4 %        |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                        |       |       |        |                  |
|------------------------|-------|-------|--------|------------------|
| FM30 Bohemska rapsodia | Lager | Slant | 500 ml | Fermentum Mobile |
|------------------------|-------|-------|--------|------------------|