

**bp**

- Gravity **12.6 BLG**
- ABV ---
- IBU **29**
- SRM **33.3**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **17.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **20.3 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale           | 4 kg (67.2%)   | 79 %  | 6   |
| Grain | monachijski                 | 1 kg (16.8%)   | --- % | --- |
| Grain | Strzegom<br>Czekoladowy 400 | 0.2 kg (3.4%)  | 68 %  | 400 |
| Grain | Carahell Wayermann          | 0.2 kg (3.4%)  | --- % | --- |
| Grain | Jęczmień palony             | 0.35 kg (5.9%) | 55 %  | 985 |
| Grain | Karmelowy żytni<br>Strzegom | 0.2 kg (3.4%)  | 75 %  | 150 |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 30 min | 10 %       |
| Boil    | Marynka | 20 g   | 10 min | 10 %       |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |