

Porter

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **30**
- SRM **30**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **36.9 liter(s)**
- Total mash volume **47.5 liter(s)**

Steps

- Temp **64 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **36.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 5 kg (47.4%) | 79 % | 22 |
| Grain | Pilzneński | 2 kg (19%) | 81 % | 4 |
| Grain | Briess - Pale Ale Malt | 2 kg (19%) | 80 % | 7 |
| Grain | Fawcett - Brown | 0.5 kg (4.7%) | 72 % | 180 |
| Grain | Słód Caramunich Typ II Weyermann | 0.5 kg (4.7%) | 73 % | 120 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.35 kg (3.3%) | 73 % | 900 |
| Grain | Fawcett - Pale Chocolate | 0.2 kg (1.9%) | 71 % | 600 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 10 % |
| Boil | Perle | 25 g | 20 min | 8.4 % |
| Boil | Perle | 25 g | 5 min | 8.4 % |