

# porter

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **16**
- SRM **35**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **29.1 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **20.8 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński         | 2.5 kg (30.1%) | 80 %  | 4    |
| Grain | Strzegom Monachijski typ II | 2 kg (24.1%)   | 79 %  | 22   |
| Grain | Strzegom Wiedeński          | 2 kg (24.1%)   | 79 %  | 10   |
| Grain | Caramunich® typ I           | 0.5 kg (6%)    | 73 %  | 80   |
| Grain | Caraaroma                   | 0.5 kg (6%)    | 78 %  | 400  |
| Grain | Carafa III                  | 0.2 kg (2.4%)  | 70 %  | 1034 |
| Grain | pszeniczny czekoladowy      | 0.2 kg (2.4%)  | 70 %  | 900  |
| Grain | Jęczmień palony             | 0.1 kg (1.2%)  | 55 %  | 900  |
| Grain | Płatki owsiane              | 0.3 kg (3.6%)  | 60 %  | 3    |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 15 g   | 60 min | 12.5 %     |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 23 g   | Fermentis  |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Flavor | suszona sliwka | 400 g  | Boil    | 15 min |