

# Smoluch

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **29**
- SRM **34.5**
- Style **Foreign Extra Stout**

## 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 **15 %/h**
- Boil size **31.6 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **22.3 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount         | Yield | EBC  |
|-------|----------------------------------|----------------|-------|------|
| Grain | Weyermann - Pilsner Malt         | 5.5 kg (71.4%) | 81 %  | 5    |
| Grain | Caraaroma                        | 0.4 kg (5.2%)  | 78 %  | 400  |
| Grain | Weyermann - Carafa II            | 0.4 kg (5.2%)  | 70 %  | 837  |
| Grain | Simpsons - Coffee Malt           | 0.4 kg (5.2%)  | 74 %  | 296  |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.2 kg (2.6%)  | 73 %  | 1001 |
| Grain | Oats, Flaked                     | 0.4 kg (5.2%)  | 80 %  | 2    |
| Grain | Barley, Flaked                   | 0.4 kg (5.2%)  | 70 %  | 4    |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Marynka    | 50 g   | 60 min | 6.5 %      |
| Boil    | Willamette | 25 g   | 10 min | 7.3 %      |

## Yeasts

| <b>Name</b> | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|-------------|-------------|-------------|---------------|-------------------|
| Safale S-04 | Ale         | Slant       | 450 ml        | Safale            |