

## Stout\_v17 #144

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **49**
- SRM **30.8**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **20.7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.7 liter(s)**
- Boil time **70 min**
- Evaporation rate **14 %/h**
- Boil size **25.5 liter(s)**

### Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount          | Yield  | EBC  |
|-------|----------------------------------|-----------------|--------|------|
| Grain | Pale Ale - viking                | 2.6 kg (52.1%)  | 80 %   | 5.5  |
| Grain | monachijski I - viking           | 1.15 kg (23%)   | 78 %   | 16   |
| Grain | monachijski II - viking          | 0.55 kg (11%)   | 78 %   | 22   |
| Grain | karmelowy 300 - viking           | 0.3 kg (6%)     | 73 %   | 300  |
| Grain | czekoladowy pszeniczny - fawcett | 0.2 kg (4%)     | 72.7 % | 1050 |
| Grain | czekoladowy jęczmienny - viking  | 0.086 kg (1.7%) | 67 %   | 900  |
| Grain | Carafa III special - weyer mann  | 0.106 kg (2.1%) | 65 %   | 1400 |

### Hops

| Use for   | Name                | Amount | Time   | Alpha acid |
|---|---------------------|--------|--------|------------|
| Boil  | Magnum              | 20 g   | 60 min | 11.5 %     |
| Aroma (end of boil)                                       | Perle szyszka mokra | 60 g   | 10 min | 7 %        |
| 240 gr mokrej szyszki (mrożonej), ekwiwalent 60 gr suchej |                     |        |        |            |

|   |                       |      |        |     |
|---|-----------------------|------|--------|-----|
| Aroma (end of boil)                                       | Sybilla szyszka mokra | 30 g | 10 min | 7 % |
| 120 gr mokrej szyszki (mrożonej), ekwiwalent 30 gr suchej |                       |      |        |     |

## Yeasts

| Name                           | Type | Form  | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| WLP090 - San Diego Super Yeast | Ale  | Slant | 170 ml | White Labs |
| gęstwa 32-dniowa               |      |       |        |            |

## Extras

| Type        | Name                | Amount | Use for  | Time   |
|-------------|---------------------|--------|----------|--------|
| Water Agent | gips                | 1.5 g  | Mash     | ---    |
| Water Agent | węglan wapnia       | 5.5 g  | Mash     | ---    |
| Water Agent | sól epsom           | 1 g    | Mash     | ---    |
| Water Agent | kwask mlekowy [ml]  | 3.11 g | Mash     | ---    |
| Water Agent | chlerek wapnia [ml] | 0 g    | Mash     | ---    |
| Fining      | mech irlandzki      | 3 g    | Boil     | 15 min |
| Water Agent | kwask askorbinowy   | 0 g    | Bottling | ---    |