

Stout_v12 #123

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **48**
- SRM **32.5**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **19.2 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **28 %/h**
- Boil size **27.2 liter(s)**

Mash information

- Mash efficiency **87.6 %**
- 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 **17.2 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|------------------|--------|------|
| Grain | Pale Ale - viking | 2.6 kg (51.9%) | 80 % | 5.5 |
| Grain | Viking - monachijski I | 1.519 kg (30.3%) | 78 % | 16 |
| Grain | Viking - monachijski II | 0.2 kg (4%) | 78 % | 22 |
| Grain | Viking - karmelowy 300 | 0.3 kg (6%) | 73 % | 300 |
| Grain | Weyermann - czekoladowy pszeniczny | 0.2 kg (4%) | 72.7 % | 1050 |
| Grain | Viking - palony jęczmień | 0.08 kg (1.6%) | 73 % | 1000 |
| Grain | Wyerermann - Carafa III special | 0.11 kg (2.2%) | 65 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Marynka | 35 g | 60 min | 8 % |
| Aroma (end of boil) | Sybilla szyszka mokra | 40 g | 10 min | 6 % |

160 gr mokrej szyszki (mrożonej), ekwiwalent 40 gr suchej

| | | | | |
|--|---------------------|-------|--------|--------|
| Aroma (end of boil) | Perle szyszka mokra | 11 g | 10 min | 6 % |
| 47 gr mokrej szyszki (mrożonej), ekwiwalent 11 gr suchej | | | | |
| Aroma (end of boil) | Simcoe | 9.6 g | 10 min | 14.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| WLP090 - San Diego Super Yeast | Ale | Slant | 150 ml | White Labs |
| gęstwa 23-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 | chlorek wapnia [ml] | 0 g | Mash | --- |
| Fining | mech irlandzki | 3 g | Boil | 10 min |
| Water Agent | kwask askorbinowy | 0 g | Bottling | --- |