

Stout_v16 #140

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **57**
- SRM **33.2**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **17.7 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **86.5 %**
- Liquor-to-grist ratio **2.92 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20.2 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 **72.7C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|-----------------|-------|------|
| Grain | pale ale - viking | 2.6 kg (50.5%) | 80 % | 5.5 |
| Grain | monachijski I - viking | 1.15 kg (22.3%) | 78 % | 16 |
| Grain | monachijski II - viking | 0.55 kg (10.7%) | 78 % | 22 |
| Grain | karmelowy 300 - viking | 0.25 kg (4.9%) | 70 % | 300 |
| Grain | chocolate pale - fawcett | 0.3 kg (5.8%) | 70 % | 625 |
| Grain | czekoladowy jęczmienny - viking | 0.11 kg (2.1%) | 67 % | 900 |
| Grain | palony jęczmień - viking | 0.08 kg (1.6%) | 73 % | 1000 |
| Grain | carafa III special - weyermann | 0.11 kg (2.1%) | 65 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil | Magnum | 25 g | 60 min | 11.5 % |
| Aroma (end of boil) | CTZ | 15 g | 10 min | 10.7 % |

| | | | | |
|---|-----------------------|------|--------|-----|
| Aroma (end of boil) | Sybilla szyszka mokra | 30 g | 10 min | 6 % |
| 120 gr mokrej szyszki (mrożonej), ekwiwalent 30 gr suchej | | | | |
| Aroma (end of boil) | Perle szyszka mokra | 60 g | 10 min | 6 % |
| 240 gr mokrej szyszki (mrożonej), ekwiwalent 60 gr suchej | | | | |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 160 ml | Fermentum Mobile |
| gęstwa 1,5-miesięczna | | | | |

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 | 10 min |
| Water Agent | kwask askorbinowy | 0 g | Bottling | --- |