

stout

- Gravity **14.7 BLG**
- ABV ---
- IBU **33**
- SRM **39.8**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **65 C**, Time **120 min**

Mash step by step

- Heat up **16.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **120 min** at **65C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|---------------|-------|------|
| Grain | Pilzneński | 4 kg (74.6%) | 81 % | 4 |
| Grain | Monachijski | 0.4 kg (7.5%) | 80 % | 16 |
| Grain | Grodziski pszeniczny wędzony dębem | 0.2 kg (3.7%) | 80 % | 3 |
| Grain | Pszeniczny | 0.2 kg (3.7%) | 85 % | 4 |
| Grain | Caraaroma | 0.2 kg (3.7%) | 78 % | 400 |
| Grain | Strzegom pszenica prażona | 0.2 kg (3.7%) | 70 % | 1000 |
| Grain | Strzegom Czekoladowy ciemny | 0.16 kg (3%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 50 g | 15 min | 10 % |
| Boil | Cascade | 20 g | 10 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us 05 | Ale | Dry | 11.5 g | --- |