

Stout 1

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **42**
- SRM **26.6**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24.9 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **18.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **77C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **30.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 2.8 kg (44.9%) | 79 % | 6 |
| Grain | Strzegom Karmel 150 | 0.13 kg (2.1%) | 75 % | 150 |
| Grain | Carafa specjal TYP3 | 0.2 kg (3.2%) | 70 % | 900 |
| Grain | Monachijski | 0.5 kg (8%) | 80 % | 16 |
| Grain | Pilzneński | 2 kg (32.1%) | 81 % | 4 |
| Grain | Weyermann Caramunich 3 | 0.2 kg (3.2%) | 76 % | 150 |
| Grain | Carafa specjal TYP3 | 0.2 kg (3.2%) | 70 % | 1034 |
| Grain | Caraaroma | 0.2 kg (3.2%) | 78 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil | Marynka szyszki | 50 g | 60 min | 5 % |
| Boil | Magnum | 30 g | 15 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------|--------|-----------|----------|
| Flavor | kawa | 100 g | Boil | 5 min |
| Flavor | płatki dębowe | 20 g | Secondary | 3 day(s) |