

Stout

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **20**
- SRM **31.2**
- Style **Sweet 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 **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------------|---------------|-------|------|
| Grain | Castle Malting - Pilszeński 6-rzędowy | 5 kg (80.6%) | 80 % | 5 |
| Grain | Caraaroma | 0.3 kg (4.8%) | 78 % | 400 |
| Grain | Jęczmień palony | 0.2 kg (3.2%) | 55 % | 985 |
| Grain | Carafa | 0.1 kg (1.6%) | 70 % | 664 |
| Grain | Płatki owsiane | 0.4 kg (6.5%) | 85 % | 3 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.2 kg (3.2%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 30 g | 50 min | 5.1 % |
| Aroma (end of boil) | Styrian Golding | 30 g | 15 min | 3.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------|--------|---------|--------|
| Water Agent | laktoza | 250 g | Boil | 15 min |