

Tropical Stout 2023

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **29**
- SRM **33.6**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **25.8 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **31.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (71.9%) | 80 % | 5 |
| Grain | Special B Castle | 0.1 kg (1.4%) | 70 % | 350 |
| Grain | Weyermann - Carafa III | 0.25 kg (3.6%) | 70 % | 1024 |
| Grain | Strzegom Karmel 300 | 0.25 kg (3.6%) | 70 % | 299 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (3.6%) | 68 % | 1200 |
| Sugar | muscovado | 0.25 kg (3.6%) | 94 % | 49 |
| Sugar | Dememera Sugar | 0.25 kg (3.6%) | 100 % | 4 |
| Grain | Jęczmień palony | 0.1 kg (1.4%) | 55 % | 985 |
| Grain | Monachijski | 0.5 kg (7.2%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Challenger | 20 g | 60 min | 6.2 % |
| Boil | Magnum | 10 g | 60 min | 11 % |
| Boil | Perle | 20 g | 60 min | 6.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|------|-------|--------|------------|
| Gęstwa z bittera | Ale | Slant | 300 ml | fm |