

tropical stout

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **44**
- SRM **43.7**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **30.7 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **23 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|-------------------------------|----------------|-------|------|
| Grain | Pale Malt (2 Row) Bel | 4 kg (46.1%) | 80 % | 6 |
| Grain | Weyermann - Carared | 1 kg (11.5%) | 75 % | 45 |
| Grain | Weyermann - Carapils | 0.5 kg (5.8%) | 78 % | 4 |
| Grain | weyermann - caramunich typ II | 0.5 kg (5.8%) | 75 % | 125 |
| Grain | Weyermann - Carafa I | 0.5 kg (5.8%) | 70 % | 690 |
| Grain | Fawcett - Pale Chocolate | 1 kg (11.5%) | 71 % | 600 |
| Grain | Strzegom Czekoladowy ciemny | 0.08 kg (0.9%) | 68 % | 1200 |
| Grain | żyto palone | 0.1 kg (1.2%) | 1 % | 750 |
| Adjunct | Płatki owsiane | 1 kg (11.5%) | 1 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Mosaic | 20 g | 60 min | 10 % |

| | | | | |
|---------------------|---------|------|--------|------|
| Boil | Chinook | 20 g | 60 min | 13 % |
| Aroma (end of boil) | Mosaic | 10 g | 10 min | 10 % |
| Aroma (end of boil) | Chinook | 10 g | 10 min | 13 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|--------|--------------------------------|--------|---------|--------|
| Flavor | korzeń lukrecji | 20 g | Boil | 20 min |
| Flavor | owoce kandyzowane tropical mix | 200 g | Boil | 20 min |