

## tropical stout

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- Gravity **17.7 BLG**
- ABV ---
- IBU **50**
- SRM **47.7**
- 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 **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                           | Amount        | Yield | EBC  |
|-------|--------------------------------|---------------|-------|------|
| Grain | Briess - Pale Ale Malt         | 5 kg (74.6%)  | 80 %  | 7    |
| Grain | Strzegom<br>Czekoladowy ciemny | 0.4 kg (6%)   | 68 %  | 1200 |
| Grain | Strzegom Karmel<br>300         | 0.4 kg (6%)   | 70 %  | 299  |
| Grain | Pszeniczny                     | 0.4 kg (6%)   | 85 %  | 4    |
| Grain | Strzegom<br>Monachijski typ II | 0.5 kg (7.5%) | 79 %  | 22   |

### Hops

| Use for | Name       | Amount | Time     | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil    | Magnum     | 20 g   | 60 min   | 13.5 %     |
| Boil    | Amarillo   | 20 g   | 20 min   | 9.5 %      |
| Boil    | Lemon drop | 20 g   | 15 min   | 4.6 %      |
| Boil    | Lemon drop | 20 g   | 10 min   | 4.6 %      |
| Boil    | Citra      | 15 g   | 5 min    | 12 %       |
| Dry Hop | Lemon drop | 50 g   | 5 day(s) | 4.6 %      |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|       |     |     |      |     |
|-------|-----|-----|------|-----|
| us 04 | Ale | Dry | 20 g | --- |
|-------|-----|-----|------|-----|