

Ucieczka z tropiku

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **43**
- SRM **39.3**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **78.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Simpsons - Maris Otter | 5 kg (64.5%) | 81 % | 6 |
| Grain | Jęczmień palony | 0.25 kg (3.2%) | 55 % | 985 |
| Grain | Płatki owsiane | 0.5 kg (6.5%) | 60 % | 3 |
| Grain | Weyermann - Chocolate Rye | 0.25 kg (3.2%) | 20 % | 493 |
| Grain | Fawcett - Pale Chocolate | 0.5 kg (6.5%) | 71 % | 600 |
| Grain | Strzegom Karmel 30 | 0.25 kg (3.2%) | 75 % | 30 |
| Grain | Caramel/Crystal Malt - 80L | 0.25 kg (3.2%) | 74 % | 158 |
| Grain | Caramel/Crystal Malt - 120L | 0.5 kg (6.5%) | 72 % | 236 |
| Grain | Strzegom Karmel 300 | 0.25 kg (3.2%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Motueka | 50 g | 60 min | 7 % |
| Aroma (end of boil) | Galaxy | 25 g | 10 min | 15 % |
| Whirlpool | Galaxy | 25 g | 1 min | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|--------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Liquid | 100 ml | Fermentum Mobile |