

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