

# Tropical Stout 2023

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- 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