

# Tropical FES

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- Gravity **17.3 BLG**
- ABV ---
- IBU **63**
- SRM **60.5**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **0 %**
- Size with trub loss **16 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.8 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **13.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **19.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner	3.62 kg (75.9%)	82.61 %	3
Adjunct	Flaked Barley	0.32 kg (6.7%)	69.57 %	4
Grain	CaraAroma	0.38 kg (8%)	73.91 %	345
Grain	Roasted Barley	0.26 kg (5.5%)	63.04 %	1466
Grain	De-Husked Caraf I	0.19 kg (4%)	69.57 %	906

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale - English Ale Yeast S-04	Ale	Dry	11.5 g	Fermentis / Safale