# **Black Hole FES**

- Gravity 16.9 BLG
- ABV ----
- IBU 73
- SRM 40
- Style Foreign Extra Stout

## **Batch size**

- Expected quantity of finished beer 21.5 liter(s)
- Trub loss 10 % •
- Size with trub loss 23.6 liter(s) •
- Boil time 60 min
- Evaporation rate 15 %/h
- Boil size 29.7 liter(s)

## **Mash information**

- Mash efficiency 80 %
- Liquor-to-grist ratio **3 liter(s)** / kg Mash size **20.7 liter(s)** ٠
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- Total mash volume 27.6 liter(s)

#### Steps

- Temp 66 C, Time 70 min
  Temp 75 C, Time 15 min

## Mash step by step

- Heat up 20.7 liter(s) of strike water to 73.7C
- Add grains
- Keep mash 70 min at 66C
- ٠ Keep mash 15 min at 75C
- Sparge using 15.9 liter(s) of 76C water or to achieve 29.7 liter(s) of wort •

# **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (72.5%)	79 %	6
Grain	Strzegom Czekoladowy ciemny	0.5 kg (7.2%)	68 %	1200
Grain	Caraaroma	0.5 kg <i>(7.2%)</i>	68 %	400
Grain	Extra black	0.5 kg <i>(7.2%)</i>	65 %	1400
Grain	Oats, Flaked	0.4 kg <i>(5.8%)</i>	80 %	2

#### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	35 g	60 min	11 %
Boil	Magnum	35 g	60 min	12 %

# Yeasts

Name	Туре	Form	Amount	Laboratory
Mangrove Jack's M07 British Ale	Ale	Dry	11 g	

# **Extras**

Type	Name	Amount	Use for	Time
туре	Hame	Amoune	050101	· ·····c

Recipe has been printed via BREWNESS.com - a complex online solution for homebrewers to track brewing process easily.

Water Agent Chlorek wapnia	5 g	Mash		
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