

# Darth Black

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- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **77**
- SRM **7**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **19.5 liter(s)**
- Trub loss **0 %**
- Size with trub loss **19.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.6 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **22.1 liter(s)** of strike water to **70.5C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **75C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Biscuit Malt	0.5 kg (7.7%)	79 %	45
Grain	Simpsons - Maris Otter	6 kg (92.3%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Chinook	20 g	60 min	13 %
Boil	Chinook	20 g	30 min	13 %
Whirlpool	Chinook	40 g	25 min	13 %
Boil	Chinook	20 g	15 min	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	240 ml	Fermentis

## Notes

- 300g carafa 3 special cold brew w 30l 24h  
*Feb 3, 2018, 9:24 PM*