

## Black IPA (mrok) 39

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **79**
- SRM **48.8**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **0 %**
- Size with trub loss **12.4 liter(s)**
- Boil time **45 min**
- Evaporation rate **12 %/h**
- Boil size **15.5 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.3 liter(s)**
- Total mash volume **13.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **10.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **8.6 liter(s)** of **76C** water or to achieve **15.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BEST Pale Ale (BESTMALZ)	2.18 kg (63.4%)	82.8 %	15
Grain	Viking Wheat Malt	0.97 kg (28.2%)	84 %	15
Grain	Carafa Special III (Weyermann)	0.17 kg (4.9%)	75.74 %	2469
Grain	Chocolate Wheat (Weyermann)	0.12 kg (3.5%)	75.74 %	2180

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus (Tomahawk)	15 g	45 min	14 %
Boil	Citra	30 g	20 min	12 %
Boil	Simcoe	15 g	7 min	13 %
Aroma (end of boil)	Amarillo	15 g	0 min	9.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss Kveik	Ale	Liquid	100 ml	Fermentum Mobile

### Extras

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

Type	Name	Amount	Use for	Time
Water Agent	Siarczan Magnezu (MgSO4)	4.18 g	Mash	60 min
Water Agent	Phosphoric Acid 85%	3 g	Mash	60 min
Water Agent	Gips (Calcium Sulfate)	1.76 g	Mash	60 min
Water Agent	Sól	0.19 g	Mash	60 min
Water Agent	Siarczan Magnezu (MgSO4)	4.64 g	Mash	60 min
Water Agent	Gips (Calcium Sulfate)	1.96 g	Mash	60 min
Water Agent	Sól	0.22 g	Mash	60 min