

Black Mamba

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **61**
- SRM **35.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **28.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (69.4%)	79 %	6
Grain	Słód pszeniczny Bestmalz	1.5 kg (20.8%)	82 %	5
Grain	Weyermann - Carafa II	0.7 kg (9.7%)	70 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	60 min	15.5 %
Boil	Whirlfloc	1.5 g	10 min	1 %
Boil	Azacca	10 g	15 min	14 %
Boil	Amarillo	10 g	10 min	9.5 %
Boil	Azacca	10 g	5 min	14 %
Aroma (end of boil)	Amarillo	15 g	10 min	9.5 %
Dry Hop	Mosaic	10 g	5 day(s)	10 %
Dry Hop	Azacca	20 g	5 day(s)	14 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11.5 g	Fermentis
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