

Deep Black

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **32**
- SRM **36.5**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **27.7 liter(s)**

Steps

- Temp **64 C**, Time **20 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **20.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Dust Malz Pale Ale	2.3 kg (33.2%)	79 %	8
Grain	Casle Malting Whisky Nature	2 kg (28.9%)	85 %	4
Grain	Strzegom Monachijski typ II	1.75 kg (25.3%)	79 %	22
Grain	Płatki owsiane	0.3 kg (4.3%)	85 %	3
Grain	Strzegom Czekoladowy ciemny	0.12 kg (1.7%)	68 %	1200
Grain	Extra black	0.152 kg (2.2%)	65 %	1400
Grain	Palone ziarno jeczmienia	0.3 kg (4.3%)	75 %	1150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northdown	10 g	60 min	8.2 %
Boil	Warrior Queen	10 g	45 min	6.2 %
Boil	Northdown	15 g	45 min	8.2 %

Boil	Northdown	15 g	10 min	8.2 %
Boil	Warrior Queen	15 g	10 min	6.2 %
Boil	Warrior Queen	5 g	5 min	6.2 %
Boil	Northdown	5 g	5 min	8.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M42 New World Strong Ale	Ale	Dry	11 g	Mangrove Jack's

Extras

Type	Name	Amount	Use for	Time
Spice	cukier trzcinowy	20 g	Boil	15 min