

Rye Black IPA

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **78**
- SRM **41.1**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26.4 liter(s)**
- Total mash volume **35.2 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (45.5%)	81 %	4
Grain	Rye Malt	3.55 kg (40.3%)	63 %	10
Grain	Carafa III	0.25 kg (2.8%)	70 %	1034
Grain	Biscuit Malt	0.5 kg (5.7%)	79 %	50
Grain	Briess - Dark Chocolate Malt	0.5 kg (5.7%)	60 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	25 g	60 min	15.5 %
Boil	Warrior	25 g	40 min	15.5 %
Boil	Warrior	10 g	20 min	15.5 %
Boil	Warrior	20 g	10 min	15.5 %
Whirlpool	Rakau (NZ)	40 g	0 min	9.5 %
Dry Hop	Rakau (NZ)	60 g	2 day(s)	9.5 %
Dry Hop	Nelson Sauvignon	50 g	2 day(s)	11 %
Dry Hop	Warrior	20 g	2 day(s)	15.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
K-97	Ale	Dry	23 g	---