

ARES BLACK RYE IPA

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **51**
- SRM **20.9**
- Style **Black IPA**

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 **5 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24.8 liter(s)**
- Total mash volume **31 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **24.8 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **4.5 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	ARES BLACK RYE IPA	6 kg (89.6%)	75 %	20
Grain	Fawcett - Pszenny Czokoladowy	0.2 kg (3%)	73 %	1001
Sugar	Glukoza	0.5 kg (7.5%)	99 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	25 g	60 min	15.5 %
Boil	Citra	25 g	15 min	12 %
Boil	Citra	25 g	0 min	12 %
Dry Hop	Simcoe	25 g	---	13.2 %
Dry Hop	Sorachi Ace	25 g	---	10 %
Dry Hop	Citra	25 g	---	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's

Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	20 g	Boil	5 min
Fining	whirflock	5 g	Boil	5 min