

Slav smoked black rye ale

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **27**
- SRM **25**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

Steps

- Temp **45 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **8.7 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt Wędzony Czereśnią	1 kg (34.5%)	82 %	10
Grain	smoked	1 kg (34.5%)	80 %	4
Grain	Żytni	0.7 kg (24.1%)	85 %	8
Grain	Jęczmień palony	0.2 kg (6.9%)	55 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	20 min	12.5 %
Boil	Aurora	10 g	20 min	8.5 %
Whirlpool	lunga	10 g	5 min	12.5 %
Whirlpool	Aurora	10 g	5 min	8.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	6 g	---