

# BLACK IPA RYZOWA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **44**
- SRM **28**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **38.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.4 liter(s)**
- Total mash volume **43.2 liter(s)**

## Steps

- Temp **40 C**, Time **20 min**
- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **60 min**
- Temp **70 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **32.4 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **20 min** at **40C**
- Keep mash **20 min** at **50C**
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **70C**
- Keep mash **0 min** at **78C**
- Sparge using **26.6 liter(s)** of **76C** water or to achieve **48.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	6 kg (55.6%)	82 %	4
Grain	Pszeniczny	3 kg (27.8%)	85 %	4
Grain	Płatki ryzowe	1 kg (9.3%)	85 %	3
Grain	Strzegom pszenica prażona	0.3 kg (2.8%)	70 %	1000
Grain	Strzegom Barwiący	0.5 kg (4.6%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	50 g	60 min	13.2 %
Boil	Simcoe	30 g	10 min	13.2 %
Boil	Cascade PL	10 g	10 min	5.5 %
Aroma (end of boil)	Cascade PL	10 g	0 min	5.5 %
Aroma (end of boil)	Simcoe	20 g	0 min	13.2 %
Aroma (end of boil)	Styrian Dragon (SLO)	45 g	0 min	7.2 %

Dry Hop	Mosaic	30 g	3 day(s)	11.8 %
Dry Hop	Simcoe	30 g	3 day(s)	13.2 %
Dry Hop	Styrian Dragon (SLO)	30 g	3 day(s)	7.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	10 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	10 g	Boil	0 min
Water Agent	nacl	4 g	Boil	0 min