

# SH Polaris multigrain black IPA Pol'and'ris

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **100**
- SRM **34.5**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **15.5 liter(s)**
- Trub loss **15 %**
- Size with trub loss **17.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.1 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **15.7 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **47 C**, Time **10 min**
- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **15.7 liter(s)** of strike water to **51.8C**
- Add grains
- Keep mash **10 min** at **47C**
- Keep mash **90 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **22.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	1.5 kg (26.7%)	82 %	4
Grain	Viking Wheat Malt	1.5 kg (26.7%)	83 %	5
Grain	Żytni	1 kg (17.8%)	85 %	8
Grain	Oats, Flaked	1 kg (17.8%)	80 %	2
Grain	Strzegom Karmel 600	0.25 kg (4.4%)	68 %	601
Grain	Weyermann - Dehusked Carafa III	0.22 kg (3.9%)	70 %	1300
Grain	Pszeniczny Czekoladowy	0.15 kg (2.7%)	73 %	1050

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Polaris	40 g	20 min	19.8 %
Boil	Polaris	50 g	10 min	19.8 %
Aroma (end of boil)	Polaris	60 g	0 min	19.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	1000 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Chlorek wapnia	5 g	Boil	60 min
Water Agent	kreda	4 g	Boil	60 min
Water Agent	epsom	1 g	Boil	60 min
Fining	whirlflock	1 g	Boil	5 min

### Notes

- Ciemne na koniec zacierania itd.  
ananas, cukierki lodowe, mięta, bergamotka, sosna, banan, przytulia wonna  
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