

MADE IN POLAND IPA 14 BLG # 1

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **53**
- SRM **4.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20.9 liter(s)**

Steps

- Temp **60 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **66.1C**
- Add grains
- Keep mash **90 min** at **60C**
- Keep mash **5 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt,	4.2 kg (86.6%)	80 %	5
Grain	Pszeniczny	0.4 kg (8.2%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.25 kg (5.2%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	25 g	60 min	11 %
Boil	PUŁAWSKI	30 g	15 min	4.6 %
Boil	Oktawia	30 g	10 min	7.1 %
Boil	Cascade	50 g	10 min	5.2 %
Dry Hop	Cascade	50 g	7 day(s)	6 %
Dry Hop	Chinook	30 g	7 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11.5 g	Mangrove Jack's