

## na szerokich wodach

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- Gravity **15 BLG**
- ABV ---
- IBU **55**
- SRM **13.1**
- Style **English IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.3%)	80 %	5
Grain	Weyermann - Carapils	0.6 kg (9.2%)	78 %	4
Grain	Karmelowy Czerwony	0.3 kg (4.6%)	75 %	59
Grain	Caraaroma	0.15 kg (2.3%)	78 %	400
Grain	Strzegom Pszeniczny	0.5 kg (7.6%)	81 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	50 g	60 min	7 %
Boil	Fuggles	25 g	20 min	4.5 %
Boil	Fuggles	25 g	15 min	4.5 %
Boil	Fuggles	25 g	10 min	4.5 %
Boil	Fuggles	25 g	5 min	4.5 %
Boil	Challenger	50 g	1 min	7 %