

# American Porter #1 - Browar na Wyżynie

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **26**
- SRM **31.1**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **6 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

## Steps

- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **16.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **72C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Bestmaltz	3.5 kg (62.5%)	80.5 %	6
Grain	golden ale Viking Malt	0.6 kg (10.7%)	80 %	11
Grain	caramel aromatic - Viking Malt	0.3 kg (5.4%)	75 %	180
Grain	caramel sweet - Viking Malt	0.3 kg (5.4%)	75 %	75
Grain	prażony ekstra Bestmaltz	0.2 kg (3.6%)	1 %	1400
Grain	czekoladowy Bestmaltz	0.2 kg (3.6%)	1 %	900
Grain	płatki owsiane	0.5 kg (8.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	East Kent Golding (UK) - granulat	35 g	100 min	5.4 %
Whirlpool	East Kent Golding (UK) - granulat	15 g	3 min	5.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham (2 pokolenie)	Ale	Slant	300 ml	Danstar

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	2 g	Boil	15 min
Water Agent	Gips	1 g	Mash	60 min
Water Agent	Chlorek wapnia	6 g	Mash	60 min
Water Agent	Kreda	15 g	Mash	60 min
Other	Pożywka dla drożdży Wyest Brouwland	5 g	Boil	15 min
Water Agent	Kwas fosforowy 75% (wystadzanie)	2 g	Mash	60 min

### Notes

- Słody ciemne dodane na ostatnie 10 minut zacierania.

<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=Z65WD4X>  
Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
143.3 0.0 131.0 104.1 43.4 312.760

SO42-/Cl- ratio: 0.4 Very Malty  
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