

AMERICAN STOUT 16 BLG # 90

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **66**
- SRM **37.3**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **10 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **23 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **23 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Viking Barwiący Obtuszczoney	0.3 kg (4.3%)	65 %	1200
Grain	Strzegom Karmel 150	0.4 kg (5.7%)	75 %	150
Grain	Weyermann - Carafa I	0.2 kg (2.9%)	70 %	690
Grain	Słód owsiany	1 kg (14.3%)	61 %	5
Grain	Black Barley (Roast Barley)	0.1 kg (1.4%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	45 min	8 %
Boil	Chinook	30 g	60 min	8 %
Boil	Citra	20 g	30 min	14 %
Aroma (end of boil)	Citra	50 g	0 min	14 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Slant	400 ml	---
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