

Amerykaske Ciemne

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **33**
- SRM **26.6**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **97 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	2 kg (35.1%)	80 %	16
Grain	Strzegom Wiedeński	3 kg (52.6%)	79 %	10
Grain	Fawcett - Pale Chocolate	0.5 kg (8.8%)	71 %	600
Grain	Weyermann - Carafa II	0.2 kg (3.5%)	70 %	837

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	30 g	60 min	11 %
Boil	Cascade PL	20 g	15 min	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis