

amerykan staft

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **71**
- SRM **47**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **29.7 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **23.1 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.6 kg (69.7%)	80 %	4
Grain	Strzegom Karmel 600	0.5 kg (7.6%)	68 %	600
Grain	Jęczmień palony	0.6 kg (9.1%)	55 %	985
Grain	kawowy 480-520	0.5 kg (7.6%)	--- %	500
Grain	Viking Pale Ale malt	0.4 kg (6.1%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	8.5 %
Aroma (end of boil)	ekuanot	25 g	15 min	12.8 %
Aroma (end of boil)	El Dorado	25 g	15 min	12.9 %
Dry Hop	El Dorado	25 g	3 day(s)	12.9 %
Dry Hop	ekuanot	25 g	3 day(s)	12.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM13 Irlandzkie Ciemności	Ale	Slant	200 ml	---
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