

Amarillo stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **52**
- SRM **45.9**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.5 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **23.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2 kg (41%)	79 %	16
Grain	Viking Pale Ale malt	1.4 kg (28.7%)	80 %	5
Grain	Żytni	0.6 kg (12.3%)	85 %	8
Grain	Strzegom Czekoladowy ciemny	0.73 kg (15%)	68 %	1200
Grain	Jęczmień palony	0.15 kg (3.1%)	55 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	30 g	60 min	12.5 %
Boil	Amarillo	10 g	10 min	9.5 %
Whirlpool	Amarillo	20 g	10 min	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	fermentis