

# American Hoppy Stout - Warka 2

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **48**
- SRM **37.6**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

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

## Mash step by step

- Heat up **24 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (58.8%)	80 %	5
Grain	Viking Munich Malt	1 kg (14.7%)	78 %	25
Grain	Jęczmień palony	0.25 kg (3.7%)	55 %	985
Adjunct	Płatki owsiane	0.5 kg (7.4%)	60 %	3
Grain	Karmelowy Czerwony	0.25 kg (3.7%)	75 %	59
Grain	Czekoladowy	0.5 kg (7.4%)	70 %	1034
Sugar	cukier	0.3 kg (4.4%)	100 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Boil	Columbus/Tomahawk/Zeus	25 g	5 min	15.5 %
Boil	Citra	20 g	5 min	12 %
Boil	Simcoe	25 g	5 min	13.2 %

## Yeasts

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