

# Pils amerykański

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **39**
- SRM **3.9**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **44 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **33 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **28.6 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	11 kg (100%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	60 min	13.2 %
Boil	Cascade	20 g	45 min	6 %
Boil	Citra	25 g	30 min	12 %
Boil	Cascade	35 g	10 min	6 %
Boil	Amarillo	25 g	5 min	9.5 %
Whirlpool	Amarillo	30 g	0 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM30 Bohemska rapsodia	Lager	Liquid	60 ml	Fermentum Mobile