

# Hamerykański bier

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **36**
- SRM **4.1**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **32.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **5 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **75.3C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **72C**
- Sparge using **24.9 liter(s)** of **76C** water or to achieve **32.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (74.6%)	80 %	4
Grain	płatki jęczmienne	0.5 kg (7.5%)	60 %	4
Grain	Briess - Carapils Malt	0.2 kg (3%)	74 %	3
Grain	Strzegom Wiedeński	1 kg (14.9%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	40 g	60 min	11 %
Whirlpool	Tomsky	30 g	0 min	3.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	300 ml	Fermentum Mobile