

# USA PILS

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **35**
- SRM **7.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

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

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (86.2%)	80 %	4
Grain	Karmelowy Czerwony	0.8 kg (13.8%)	75 %	59

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Saaz (Czech Republic)	20 g	20 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	20 g	0 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	400 ml	Fermentis