

# American Pale Ale na ciepło

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **36**
- SRM **4.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Wiedeński Weyermann	0.5 kg (8.3%)	79 %	8
Grain	Carapils Weyermann	0.5 kg (8.3%)	75 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	25 g	60 min	9.4 %
Boil	Amarillo	25 g	10 min	8.8 %
Boil	Palisade	25 g	10 min	6.1 %
Whirlpool	Centennial	25 g	30 min	9.4 %
Whirlpool	Amarillo	25 g	30 min	8.8 %
Whirlpool	Palisade	25 g	30 min	6.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis