

# american bitter

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **10.9**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (83.3%)	80 %	5
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (16.7%)	73 %	120

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	5 g	60 min	6 %
Boil	Cascade	20 g	30 min	6 %
Boil	Cascade	20 g	5 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	10 g	Danstar