

# American Bitter 12 BLG 20I

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **45**
- SRM **6.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**

## Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (93%)	80 %	5
Grain	Crystal II 200	0.2 kg (4.7%)	71 %	200
Grain	Strzegom Monachijski typ II	0.1 kg (2.3%)	79 %	12

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	15 g	60 min	17 %
Boil	Cascade	20 g	10 min	6 %
Boil	Citra	20 g	5 min	12 %
Boil	Summit	25 g	3 min	17 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	11.5 g	Fermentis