

# Strong American Pale Ale

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **24**
- SRM **3.8**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **55 C**, Time **1 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner Malz Best	4.5 kg (81.8%)	81 %	3
Grain	Red X	0.1 kg (1.8%)	--- %	30
Grain	Wiener Malz Best	0.4 kg (7.3%)	80 %	8
Grain	Oats, Flaked	0.5 kg (9.1%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	3 g	60 min	14.5 %
Whirlpool	Mosaic	25 g	20 min	11.6 %
Whirlpool	Citra	25 g	20 min	13.9 %
Dry Hop	Mosaic	50 g	3 day(s)	11.6 %
Dry Hop	Citra	25 g	3 day(s)	13.9 %
Dry Hop	El Dorado	25 g	3 day(s)	14 %
Dry Hop	Galaxy	50 g	3 day(s)	14.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1318 London Ale III	Ale	Slant	300 ml	Wyeast Labs

## Notes

- 14,5°brix  
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