

# GALAXY APA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **44**
- SRM **6.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.1 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18.1 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4 kg (72.7%)	80 %	5
Grain	Monachijski	1 kg (18.2%)	80 %	16
Grain	Caramunich® typ I	0.5 kg (9.1%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	10 g	60 min	16.5 %
Boil	Galaxy	20 g	20 min	16.5 %
Boil	Galaxy	20 g	10 min	16.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis