

## test strong

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- Gravity **11.7 BLG**
- ABV ---
- IBU **47**
- SRM **10.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

### Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (93%)	81 %	4
Grain	Karmelowy Jasny	0.3 kg (7%)	75 %	180

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Galaxy	25 g	15 min	15 %
Boil	Amarillo	25 g	0 min	9.5 %
Dry Hop	Galaxy	25 g	5 day(s)	15 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	10 g	---