

# apa srapa

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **34**
- SRM **4.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **30.1 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **23.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **77C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (74.6%)	80 %	5
Grain	Pszeniczny	1 kg (14.9%)	85 %	4
Grain	Pilzneński	0.7 kg (10.4%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	30 min	6.9 %
Boil	cascade	40 g	10 min	6.9 %
Boil	East Kent Goldings	15 g	60 min	5.1 %
Whirlpool	Cascade	30 g	30 min	6.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	1000 ml	Fermentum Mobile

## Notes

- whorlpool 75 stopni przy chłodzeniu 30 min  
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