

# Apache

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **35**
- SRM **4.4**
- Style **White IPA**

## 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 **15 %/h**
- Boil size **34.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **27.3 liter(s)**
- Total mash volume **35.1 liter(s)**

## Steps

- Temp **65 C**, Time **80 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **27.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **80 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny Bestmalz	4 kg (51.3%)	82 %	5
Grain	Płatki pszeniczne	0.8 kg (10.3%)	85 %	3
Grain	Pilzneński	3 kg (38.5%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	50 min	6.8 %
Boil	Chinook	15 g	30 min	12.1 %
Boil	Cascade	20 g	30 min	4 %
Boil	Marynka	30 g	20 min	6.8 %
Aroma (end of boil)	Hallertau	20 g	0 min	5 %
Aroma (end of boil)	Chinook	15 g	0 min	12.1 %
Dry Hop	Hallertau	18 g	3 day(s)	5 %
Dry Hop	Chinook	20 g	3 day(s)	12.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale K-97	Wheat	Slant	200 ml	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Flavor	curacao	10 g	Boil	15 min
Spice	kolendra	8 g	Boil	15 min
Flavor	Curacao	10 g	Boil	5 min
Spice	Kolendra	7 g	Boil	5 min

### Notes

- w 45 minucie gotowania 8g kolendry i 10g curacao  
w 55 minucie gotowania 7g kolendry i 10g curacao

Łuska ryżowa do filtracji 100g  
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