

# APA Lekkie bez whirpoola

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **40**
- SRM **5.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **63 liter(s)**
- Trub loss **5 %**
- Size with trub loss **68.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **82.5 liter(s)**

## Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **39.6 liter(s)**
- Total mash volume **52.8 liter(s)**

## Steps

- Temp **52 C**, Time **0 min**
- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **39.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **0 min** at **52C**
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **56.1 liter(s)** of **76C** water or to achieve **82.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale / pils Bydgoski	9 kg (66.3%)	80 %	5
Grain	Płatki owsiane	1 kg (7.4%)	85 %	3
Grain	weyermann przenieczny	1 kg (7.4%)	85 %	4
Grain	Strzegom Monachijski typ II	2 kg (14.7%)	79 %	22
Grain	Special B Malt	0.2 kg (1.5%)	65.2 %	315
Sugar	cukier refermentacja	0.37 kg (2.7%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nugget	45 g	60 min	15.3 %
Boil	Mosaic	100 g	10 min	12.1 %
Aroma (end of boil)	Centennial	100 g	1 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Danstar - Nottingham	Ale	Dry	13 g	Danstar
----------------------	-----	-----	------	---------