

# APA SH Zula z trawą cytrynową

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **4.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **15.6 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **12.9 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **10.1 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1 kg (35.7%)	80 %	4
Grain	Viking Pale Ale malt	0.5 kg (17.9%)	80 %	5
Grain	Pszeniczny	0.5 kg (17.9%)	85 %	4
Grain	Wheat, Flaked	0.5 kg (17.9%)	77 %	4
Grain	Carahell	0.25 kg (8.9%)	77 %	26
Grain	Acid Malt	0.05 kg (1.8%)	58.7 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	20 g	15 min	13.3 %
Aroma (end of boil)	Zula	20 g	0 min	13.3 %
Dry Hop	Zula	60 g	5 day(s)	13.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	30 ml	---

## Extras

Type	Name	Amount	Use for	Time
Spice	Trawa cytrynowa	10 g	Boil	10 min
Water Agent	gips piwowarski	2 g	Boil	60 min
Other	Witamina C	2 g	Bottling	---