

# HAZY APA PL CASCADE SH

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **29**
- SRM **3.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **52 C**, Time **5 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **80 C**, Time **1 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **80C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (90.9%)	80 %	4
Grain	Pszeniczny	0.5 kg (9.1%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	50 g	30 min	5.2 %
Aroma (end of boil)	Cascade PL	50 g	7 min	5.2 %
Whirlpool	Cascade PL	100 g	1 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew American East Coast - New England	Ale	Dry	11.5 g	Lallemand