

## Light Rye APA

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **13**
- SRM **3.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **10.9 liter(s)**
- Total mash volume **14.3 liter(s)**

### Steps

- Temp **72 C**, Time **65 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **10.9 liter(s)** of strike water to **80.1C**
- Add grains
- Keep mash **65 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **21.3 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	1.5 kg (44.1%)	85 %	8
Grain	Strzegom Pilzneński	1.5 kg (44.1%)	80 %	4
Grain	Strzegom Karmel 30	0.25 kg (7.4%)	70 %	30
Grain	Weyermann - Carapils	0.15 kg (4.4%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	8 g	30 min	9.5 %
Boil	Amarillo	10 g	10 min	9.5 %
Boil	Cascade	10 g	10 min	6 %
Whirlpool	Cascade	20 g	20 min	6 %
Whirlpool	Amarillo	20 g	20 min	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis