

## #33 Rye APA

- Gravity **11.7 BLG**
- ABV ---
- IBU **50**
- SRM **6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **26.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **35.1 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **24.7 liter(s)** of **76C** water or to achieve **35.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (76.9%)	79 %	6
Grain	Weyermann - Rye Malt	1 kg (19.2%)	85 %	7
Grain	Karmelowy Czerwony	0.2 kg (3.8%)	75 %	59

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum szyszka	17 g	60 min	9.7 %
Boil	Cascade	36 g	20 min	6.8 %
Boil	Simcoe (30 zabratem-Darek)	20 g	20 min	13.2 %
Boil	Equinox	10 g	20 min	13.4 %
Whirlpool	Cascade	30 g	0 min	6.8 %
Whirlpool	Simcoe (30 zabratem-Darek)	30 g	0 min	13.2 %
Whirlpool	Equinox	27 g	0 min	13.4 %
Dry Hop	Cascade	50 g	7 day(s)	6.8 %
Dry Hop	Simcoe (30 zabratem-Darek)	20 g	7 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Fermentis