Rye APA

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **36**
- SRM **6.2**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **13.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg *(22.5%)*	80 %	5
Grain	Monachijski	1 kg *(22.5%)*	80 %	16
Grain	Żytni	0.75 kg *(16.9%)*	85 %	8
Grain	Pszeniczny	0.5 kg *(11.2%)*	85 %	4
Grain	Weyermann - Carawheat	0.25 kg *(5.6%)*	77 %	97
Grain	Płatki żytnie	0.8 kg *(18%)*	60 %	3
Grain	otręby żytnie	0.15 kg *(3.4%)*	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11.5 %
Boil	Zula	30 g	10 min	8.3 %
Aroma (end of boil)	HBC 472 Experimental	30 g	5 min	9.3 %
Whirlpool	sultana	20 g	0 min	13.8 %
Dry Hop	sultana	30 g	1 day(s)	13.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis