

## DS

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **24**
- SRM **18**
- Style **Saison**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **100 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **27.7 liter(s)**

### Steps

- Temp **54 C**, Time **15 min**
- Temp **65 C**, Time **90 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **20.8 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **15 min** at **54C**
- Keep mash **90 min** at **65C**
- Keep mash **10 min** at **76C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (69.7%)	80 %	4
Grain	Carafa II	0.25 kg (3.5%)	70 %	812
Grain	Weyermann - Carawheat	0.25 kg (3.5%)	77 %	97
Grain	Special B Malt	0.12 kg (1.7%)	65.2 %	315
Adjunct	Rodzynki	0.25 kg (3.5%)	80 %	---
Grain	Weyermann - Vienna Malt	1.3 kg (18.1%)	81 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	29.59 g	60 min	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM21 Odkrycie sezonu	Ale	Liquid	5.28 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Flavor	Zest 2 pomarańczy	0.53 g	Boil	0 min
Herb	Rosemary	0.53 g	Boil	0 min

### Notes

- big krausen by 24 hours at ~75 room temp. After another 24 hours I gave it some heat with the heating pad set to low to get the temperature up a bit (wort temp around 84)  
*Feb 15, 2018, 9:52 PM*