RIS"

- Gravity **23.1 BLG**
- ABV **10.5 %**
- IBU **87**
- SRM **41.2**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **13.5 liter(s)**
- Trub loss **10 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.3 liter(s)**
- Total mash volume **32.4 liter(s)**

Steps

- Temp **65 C**, Time **90 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **24.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **15 min** at **78C**
- Sparge using **2.2 liter(s)** of **76C** water or to achieve **18.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(61.7%)*	80 %	5
Grain	Strzegom Wiedeński	0.4 kg *(4.9%)*	79 %	10
Grain	Strzegom Bursztynowy	0.5 kg *(6.2%)*	70 %	49
Grain	Strzegom Czekoladowy jasny	0.4 kg *(4.9%)*	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.2 kg *(2.5%)*	68 %	1200
Grain	Strzegom pszenica prażona	0.2 kg *(2.5%)*	70 %	1000
Grain	Płatki pszeniczne	0.4 kg *(4.9%)*	85 %	3
Grain	Wędzony bukiem Viking Malt	1 kg *(12.3%)*	82 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	45 min	16.8 %
Aroma (end of boil)	Centennial	30 g	0 min	8.3 %
Aroma (end of boil)	Centennial	20 g	10 min	8.3 %
Aroma (end of boil)	East Kent Goldings	30 g	0 min	5.1 %

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Aroma (end of boil)	East Kent Goldings	20 g	10 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	23 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Flavor	płatki dębowe	50 g	Secondary	21 day(s)