Ap

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **40**
- SRM **29.6**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.3 kg *(47.1%)*	79 %	6
Grain	Strzegom Wiedeński	2 kg *(28.6%)*	79 %	10
Grain	Caraaroma	0.3 kg *(4.3%)*	78 %	400
Grain	Strzegom Czekoladowy 400	0.4 kg *(5.7%)*	68 %	400
Grain	Karmelowy Pszeniczny Strzegom	0.3 kg *(4.3%)*	79 %	130
Grain	Biscuit Malt	0.5 kg *(7.1%)*	79 %	45
Grain	black bestmalz	0.2 kg *(2.9%)*	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	12.5 %
Boil	Willamette	10 g	60 min	5.2 %
Boil	Columbus/Tomahawk/Zeus	10 g	30 min	12.5 %
Boil	Willamette	5 g	30 min	5.2 %
Boil	Columbus/Tomahawk/Zeus	5 g	10 min	12.5 %
Boil	Willamette	5 g	10 min	5.2 %
Boil	Columbus/Tomahawk/Zeus	10 g	1 min	12.5 %
Boil	Willamette	15 g	1 min	5.2 %
Dry Hop	Columbus/Tomahawk/Zeus	5 g	7 day(s)	15.5 %
Dry Hop	Willamette	15 g	7 day(s)	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	---

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