

Milk Stout

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **29**
- SRM **35.9**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **28.7 liter(s)**
- Total mash volume **36.4 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **28.7 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsen	6.25 kg (71.4%)	80.5 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (5.7%)	79 %	16
Grain	Carafa III	0.4 kg (4.6%)	70 %	1034
Grain	Jęczmień palony	0.3 kg (3.4%)	55 %	985
Grain	Castle Cafe Llght	0.3 kg (3.4%)	75.5 %	250
Sugar	laktoza	1 kg (11.4%)	100 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	16.5 %
Aroma (end of boil)	Fuggles	25 g	10 min	4.5 %
Aroma (end of boil)	Fuggles	25 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Danstar - Windsor Ale	Ale	Slant	100 ml	Danstar
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Extras

Type	Name	Amount	Use for	Time
Herb	laktoza	0.5 g	Boil	10 min