

## #31 Milk Stout (Dark Necessities)

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **20**
- SRM **34.6**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **12.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **17.6 liter(s)**

### Mash information

- Mash efficiency **84.5 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.8 kg (53.7%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (14.9%)	79 %	16
Grain	Crystal	0.2 kg (6%)	80 %	160
Grain	Castle Cafe	0.15 kg (4.5%)	75.5 %	480
Grain	Jęczmień palony	0.15 kg (4.5%)	55 %	1000
Grain	Strzegom pszenica prażona	0.1 kg (3%)	70 %	1000
Grain	Carafa I Special	0.1 kg (3%)	73 %	900
Adjunct	Milk Sugar (Lactose)	0.35 kg (10.4%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	20 g	60 min	4.7 %
Boil	Fuggles	10 g	30 min	4.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	200 ml	Fermentum Mobile
Starter 2 dniowy				

### Extras

Type	Name	Amount	Use for	Time
Other	Wyeast Nutrient	1.5 g	Boil	10 min