Stout

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **28**
- SRM **31.8**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **35.4 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **63 C**, Time **10 min**
- Temp **69 C**, Time **80 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **80 min** at **69C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **24.6 liter(s)** of **76C** water or to achieve **35.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg *(55.6%)*	79 %	6
Grain	Strzegom Monachijski typ I	1 kg *(13.9%)*	79 %	16
Grain	Jęczmień palony	0.3 kg *(4.2%)*	55 %	985
Grain	Briess - Dark Chocolate Malt	0.2 kg *(2.8%)*	60 %	1100
Grain	Płatki owsiane	0.4 kg *(5.6%)*	60 %	3
Grain	Weyermann - Carafa II	0.2 kg *(2.8%)*	70 %	1100
Grain	Caraaroma	0.1 kg *(1.4%)*	78 %	400
Grain	Strzegom Pilzneński	0.5 kg *(6.9%)*	80 %	4
Grain	płatki jęczmienne	0.5 kg *(6.9%)*	60 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	50 g	60 min	4.5 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	0 min	4 %

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Boil	Magnum	15 g	60 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M42 New World Strong Ale	Ale	Dry	11.5 g	Mangrove Jack's