Moonless Night

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **31**
- SRM **32.3**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **16.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

Mash step by step

- Heat up **12.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **74C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **18.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	3.5 kg *(84.3%)*	81 %	4
Grain	Weyermann - Carapils	0.1 kg *(2.4%)*	78 %	4
Grain	Weyermann żytni czekoladowy	0.15 kg *(3.6%)*	65 %	650
Grain	Strzegom Czekoladowy jasny	0.2 kg *(4.8%)*	68 %	400
Grain	Weyermann - Carafa III	0.2 kg *(4.8%)*	70 %	1400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	10 g	60 min	15.5 %
Aroma (end of boil)	Warrior	20 g	5 min	15.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11 g	---

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