Smoła z lasu

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **43**
- SRM **41**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **23.6 liter(s)**
- Total mash volume **29.5 liter(s)**

Steps

- Temp **69 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **23.6 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **70 min** at **69C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **1.3 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Suflet Pale Ale malt	4.5 kg *(76.3%)*	80 %	5
Grain	Żytni	0.5 kg *(8.5%)*	85 %	8
Grain	Strzegom Czekoladowy 400	0.4 kg *(6.8%)*	68 %	400
Grain	Fawcett - Pszeniczny Czekoladowy	0.4 kg *(6.8%)*	73 %	1001
Grain	Jęczmień palony	0.1 kg *(1.7%)*	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Iunga	20 g	90 min	11 %
Boil	Chinook	10 g	10 min	13 %
Whirlpool	Lemon drop	30 g	30 min	4.6 %
Boil	Chinook	20 g	0 min	13 %
Dry Hop	Lemon drop	70 g	3 day(s)	4.6 %
Dry Hop	Chinook	70 g	3 day(s)	13 %

Yeasts

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

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Other	gips piwowarski	5 g	Boil	70 min
Flavor	NaCl	4 g	Boil	70 min