

Smola 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 | lunga | 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

| 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 |