

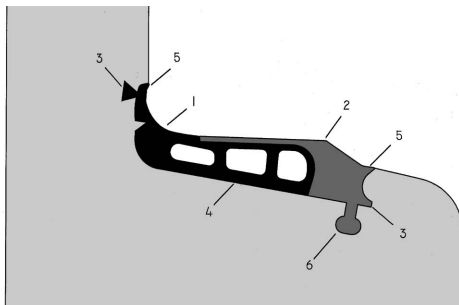
# Forsheda 156

eNGine™



## General Application

Forsheda 156 eNGine™ is a one-piece integrated seal for low-pressure concrete pipes. It is cast in to the pipe socket during pipe manufacture. The seal can also be used for concrete pipe connections to manholes.



## Seal Design and Function

The eNGine™ seal is produced from two different hardness of rubber.

**1. Forming part**, made of hard rubber, (63 IRHD) ensures a secure and accurate joint profile during casting.

**2. Sealing part**, made of soft rubber, (36 IRHD) is a combined lip and compression seal. The soft rubber has excellent flexibility to take up irregularities in the spigot surface.

**3 and 6. Retaining and holding sections** are cast into the concrete during pipe manufacture and secure the seal in the correct position.

**4. Smooth back of the seal** helps to achieve a good concrete surface at the rear of the seal.

**5. Slurry lips** seal against the base ring (pallet) preventing concrete ingress during pipe manufacture.

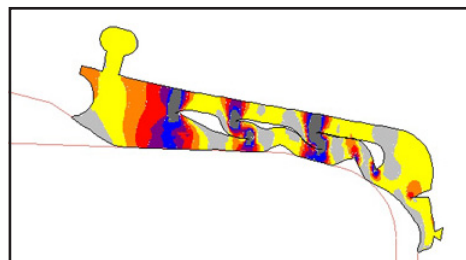
## Seal Performance

The eNGine™ seal meets or exceeds the requirements of all current relevant European standards including the FBS demands.

## Material

- Synthetic rubber EPDM
- Dual hardness
- Sealing part 36±5 IRHD
- Forming part 63±5 IRHD
- Approved in accordance with EN 681-1
- Ozone resistant

Detailed material specification is available from Trelleborg Pipe Seals on request.

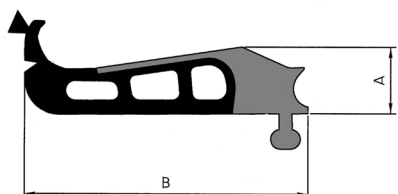


## Quality Assurance

SS-EN ISO 9001:2000

### Seal Marking and Box Labels

Each seal is marked with seal dimension and the date of manufacture. The box is labelled with the corresponding data.



### Example of sizes

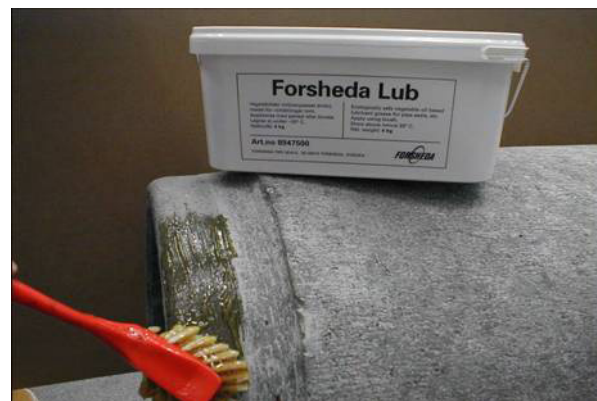
Profile	Effective thickness	A, mm	B, mm
12	12 mm	14,5±0,4	59,9±0,7
14	14 mm	16,0±0,4	68,0±0,7
14 T	14 mm	15,5±0,4	80,5±0,8
18	18 mm	20,0±0,5	81,0±0,7
18 T	18 mm	20,0±0,5	100,0±1,0
22	22 mm	24,4±0,6	98,0±1,0
22 T	22 mm	24,4±0,6	109,0±1,0

Please contact Trelleborg Forsheda Pipe Seals for technical advice and joint design recommendations to meet your performance requirements.

Concrete pipes with Forsheda 156 eNGine™ shall always be laid in accordance with applicable standards and regulations.

**FORSHEDA**

## Pipe Assembly



1. Check that the socket and spigot end are intact and free from mud and gravel. Do not use damaged pipes.
2. Apply lubricant all round the spigot end. Make sure that the front rounded part of the spigot is adequately lubricated.
3. Center the pipe ends and push the spigot into the socket. The seal design prevents concrete to concrete contact.

Assembly tools and methods including laying pipes with excavator can be advised by Trelleborg Forsheda Pipe Seals.

Example of authorities Trelleborg Pipe Seals cooperates with:



**TRELLEBORG**

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