



Alkadyne[®]



ENGINEERED TO OUTPERFORM

ALKADYNE[®] PE100 HDF 145B FROM QENOS



QENOS AUSTRALIA – BEST IN CLASS

Qenos is the recognised benchmark in Australia for the supply of premium world class PE100 Polyethylene grades for use in pressure pipes for water conservation and delivery, waste management, mining and gas.

As Australia's leading supplier of world-class polyethylene we use our polymer expertise, our global alliances and our application know-how to develop ground-breaking solutions to meet the needs of the growing pipe market.

We add value to Australia's rich oil and gas reserves by converting valuable natural resources into high value petrochemicals and plastics, which in turn are used to create innovative, engineered pipe solutions.



ALKADYNE® HDF145B RAISES THE BAR FOR RESIN PERFORMANCE

Qenos Alkadyne® PE100 grades are the ideal choice for demanding installation conditions, providing long term durability and exceptional pipe network longevity. All grades are designed to meet or exceed the key PE100 performance requirements for:

- Hydrostatic strength (MRS10)
- Slow Crack Growth Resistance (SCGR)
- Resistance to Rapid Crack Propagation (RCP)

Alkadyne® HDF145B takes resin performance to a new level. Developed by Qenos in close partnership with Univation Technologies utilising state-of-the-art bimodal catalyst technology, HDF145B combines the excellent physical properties of Alkadyne® HDF193B with a new level of extrusion performance for manufacturers and end users alike. Its superior benefits include:

- Ultra low sag performance enabling the production of very large diameter thick walled pipes, expanding the potential for Australian PE pipe manufacturers to penetrate new markets
- Throughput benefits that maximise extrusion capacity resulting in reduced pipe extrusion costs and delaying the need for capital expenditure in new capacity
- Excellent pipe dimensional stability enabling small tolerances, more efficient material usage, and optimal installation efficiency.



GO TO WHERE NO PIPE HAS GONE BEFORE

Alkadyne® HDF145B is outstanding for the production of large diameter, thick walled pipes (>100mm wall thickness).

Exceptional melt strength results in ultra low sag performance making even the most challenging pipe dimensions possible using existing vacuum sizing extrusion technology.

Alkadyne® HDF145B expands the range of PE pipes to new frontiers and is ideally suited to:

- Large scale mining projects, particularly for slurry transportation
- Water transportation mains that may involve challenging directional drilling installation where thicker pipes are required to withstand high pulling forces
- Desalination plant intakes and outfalls
- Other applications requiring large diameter thick walled pipe traditionally serviced by steel and concrete.

With a proven track record in large scale projects, Alkadyne® HDF145B has proven its capability to produce large diameter, very thick walled pipes (>100mm wall thickness).



MINIMISE YOUR SCRAP. MAXIMISE QUALITY

Traditionally, large diameter thick walled pipes have presented a processing challenge which can result in high scrap rates.

As a result of the “step out” melt strength, Alkadyne® HDF145B has a very broad processing window, enabling simpler set up, less scrap and reduced costs. Excellent dimensional control of pipe ovality and tolerances also enables more efficient installation.



ALKADYNE® HDF145B TAKES
RESIN PERFORMANCE TO AN
ENTIRELY NEW LEVEL



ACCELERATED EXTRUSION THROUGHPUT

Maximising pipe extrusion throughput reduces costs and increases effective plant capacity.

Alkadyne® HDF145B has achieved throughput benefits of up to 20% versus standard PE100 resins across a range of pipe dimensions and extrusion equipment.

To demonstrate its unique performance, Alkadyne® HDF145B was run on a 90mm Battenfeld-Cincinnati grooved-barrel extruder along with five commercial PE100 resins. The pipe produced was 250mm SDR11 at 720kg/hr. The unique molecular structure of Alkadyne® HDF145B results in higher specific output at lower extrusion melt temperature to maximise extrusion throughput.



LEAVE NOTHING TO CHANCE

Genos quality is driven by world class systems that are independently verified:

- Alkadyne® PE100 Black grades comply with AS/NZS 4131 for PE100 type compounds and are intended to be used in pipes conforming to AS/NZS 4130
- Alkadyne® PE100 Black grades are type test licensed to AS4131 by SAI Global (Lic. 20138)
- Our laboratories conduct all quality assurance on Alkadyne® PE100
- Product development and technical support for customers are performed in the Genos Technical Centre which is NATA accredited for key PE100 resin quality and performance tests
- Genos third party registrations provide independent confirmation of compliance to recognised standards including ISO 9001.

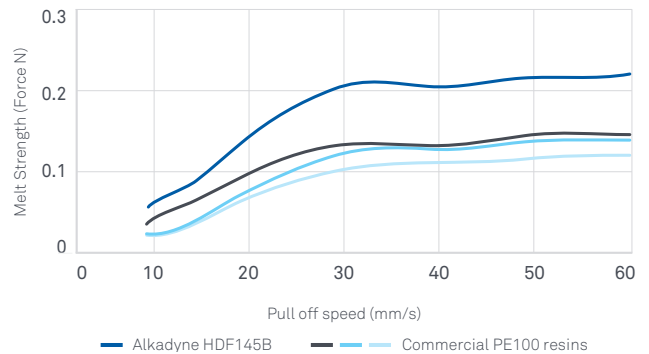


ALKADYNE® PE100 – HDF145B

ULTRA LOW SAG PERFORMANCE

The step out melt strength performance means Alkadyne® HDF145B is capable of producing pipe of wall thickness greater than 80mm. This opens up new applications to PE100 pipe and allows manufacturers to access new markets.

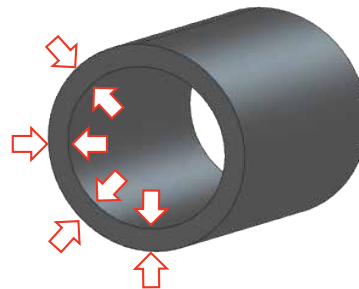
Designers are able to consider using PE100 in applications usually reserved for steel and concrete.



EXCELLENT PIPE DIMENSIONAL STABILITY

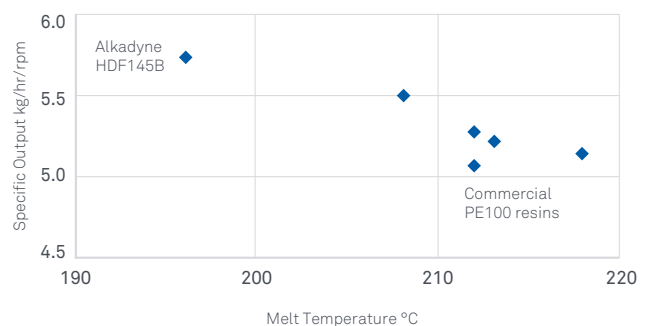
High melt strength results in excellent pipe dimensional stability. Alkadyne® HDF145B minimises tolerances and reduces rework resulting in:

- Raw material saving
- Optimal pipe installation efficiency



HIGHER SPECIFIC OUTPUT AND COOLER MELT TEMPERATURES

The market leading extrusion performance of Alkadyne® HDF145B allows pipe extruders to increase outputs and efficiency. Production capacity can be expanded through higher extrusion rates. Cooling limited sites can substantially increase line speed.



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