



MANUFACTURER OF
**CLOSED CELL SPONGE RUBBER
& PLASTIC FOAM**

MADE IN AMERICA
TRUSTED THROUGHOUT THE
WORLD



August 2016

TECHNICAL REPORT: Durafoam™ C41EP Performance Compared to Crosslinked PE and EVA for Knee Pads

Monmouth Rubber has been a manufacturer of closed cell rubber products for 50 plus years.

Both Durafoam™ C41EP and crosslinked PE and EVA are closed cell.

Closed cell is the material construction of choice because the air is locked into each micro cell and therefore gives a pneumatic cushion to the knee when weight is applied to the kneepad.

Monmouth Rubber has done extensive testing of both Durafoam™ C41EP and crosslinked PE and EVA for kneepads.

Crosslinked PE and EVA for kneepads have not held up as a kneepad based on long-term aging and impact tests done in our shock attenuation lab in Long Branch, New Jersey. The failure of the PE and EVA is a result of a premature breakdown in the plastic cell walls that hold the gas (air). Crosslinked PE and EVA are plastic and are crosslinked (cured) to about 33% of the total mass. This is true for all PE & EVA foam. Consequently, the plastic foam degrades due to repeated knee pressure. Further, the resistance to ozone and UV is poor.

Durafoam™ C41EP is a fully cured (crosslinked) rubber product. Durafoam™ C41EP withstands rugged applications similar to the way a car tire performs. C41EP due to its high state of cure locks the gas into each micro cell. The polymer system is an EPDM proprietary blend. C41EP performs at high and low temperatures far better than plastic foam. It is ozone, UV and anti-fungal resistant.

Durafoam™ C41EP is manufactured 100% in the USA to rigid governmental environmental, ISO and industry standards. It is 100% recyclable.

Ultimately, a kneepad must continue to absorb shock. Monmouth Rubber has tested Durafoam™ C41EP and it holds up as a kneepad much longer than imported plastic foam. Below is a shock attenuation curve that quantifies the aged performance of C41EP as a kneepad.



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DROP TEST

MATERIAL: C41EP

DROP HEIGHT: 3 FT.

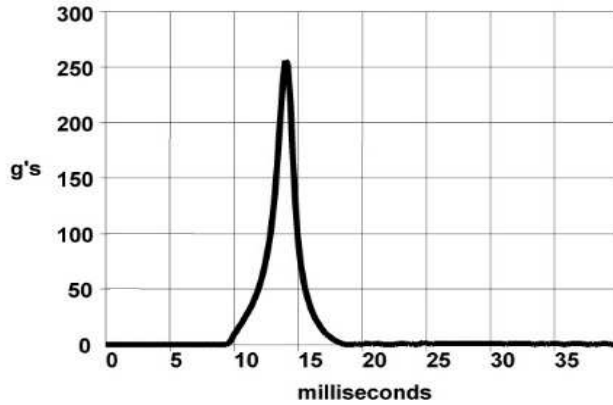
THICKNESS OF RUBBER

SPECIMEN : 1/2" **TEST RESULTS**

HIC: 998

G's:260

Deceleration vs. Time for Drop #2



Conclusion: you put the best performing tires on your car...protect your body as you do your car and put C41EP the best performing kneepads on your knees.

If further information is required, please feel free to contact me.

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CERTIFICATE #US08/5033



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Just email johnsr@monmouthrubber.com, or call 1-732-229-3444 Ext 12 and "Ask John".



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